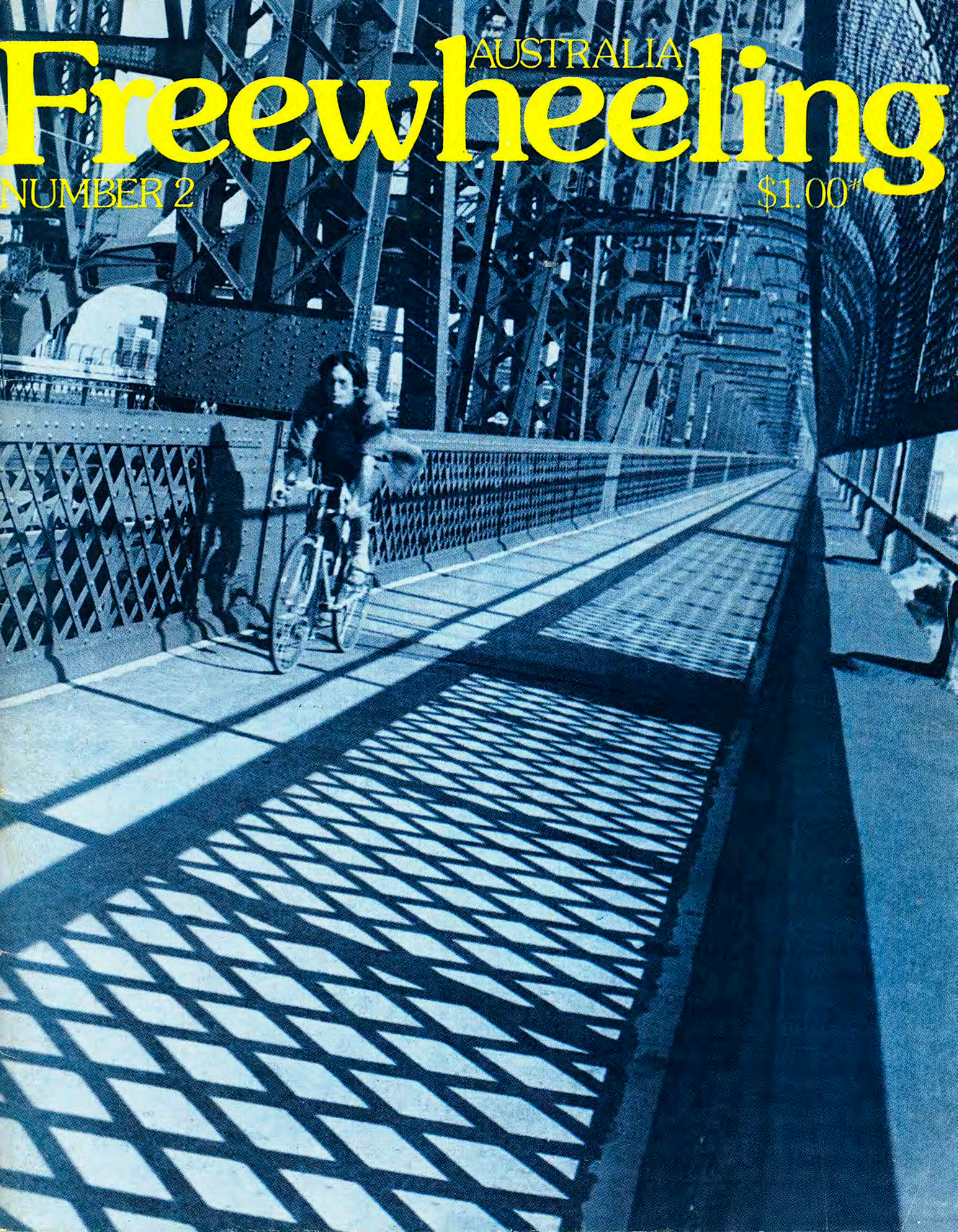


AUSTRALIA Freewheeling

NUMBER 2

\$1.00*



australian bicycle groups

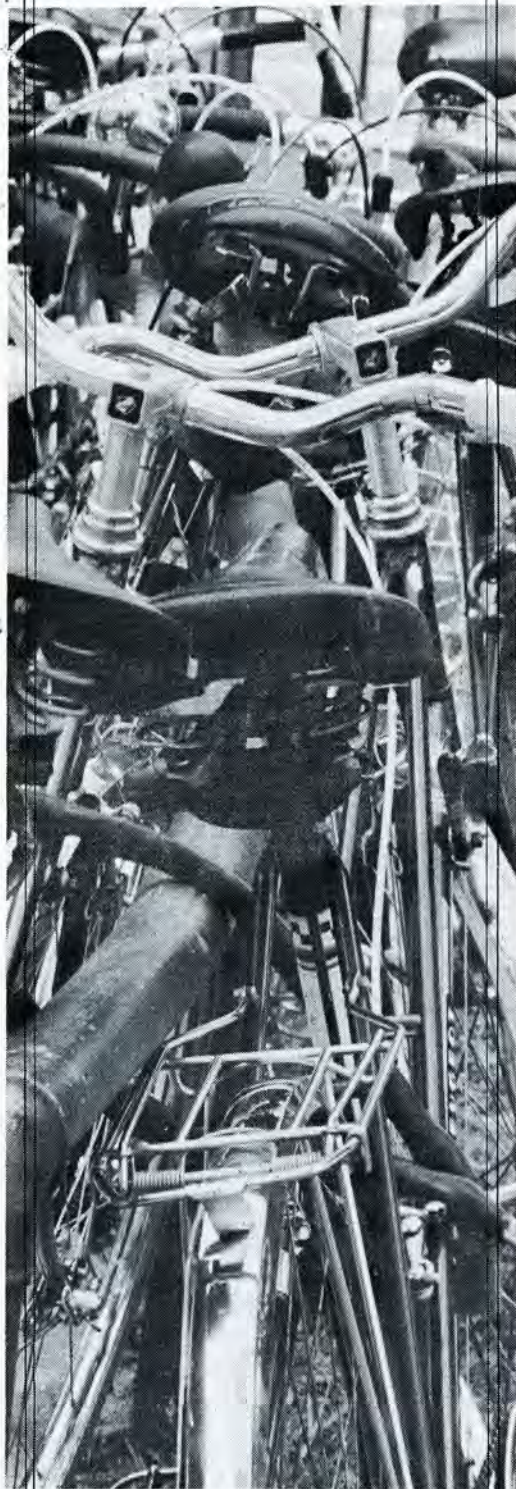


Photo Pat Fiske.

NEW SOUTH WALES

Bicycle Institute of NSW
399 Pitt Street, Sydney.
Ph: 233 5388

Newcastle Cycleways Movement
6 Jefferson Street, Adamstown

Central Coast Cycleways Movement
6 Kimberley Avenue
Narara NSW 2251

Pedal Power Illawarra
20 Hillcrest Street
West Wollongong

Cyclist Action Group (CYAG)
c/o Environment Centre
233 Pitt Street, Sydney 2000

NSW Amateur Bicycle Federation
Secretary: Fay Rampling
7 Neridah Avenue, Mt Colah NSW

Wheelmans Club of NSW
39 King Street, Ashbury
Ph: 798 4224

League of Wheelmen
Contact Sid Freshwater (523 4428)

Veterans Wheelmans Club
Secretary Ies Oates (607 8435)

Green Valley Cycle Touring Club
Contact Russel Moore
Ph: 607 8686

Non Club Cycle Tourers
Contact Doug Sotheren
Ph: 854 489 [h]

The Bicycle Institute Touring Group offers help to any one wishing to form a touring club or local cycle group. General NSW touring advice can also be obtained from extensive files now in the process of being catalogued. This BINSW group also produces a touring calendar twice a year and will advertise tours free of charge on the calendar to any non-profit cycle group. Contact Warren Salomon, ph: 211 1089 [w], or BINSW Bicycle Touring Group, 399 Pitt Street, Sydney NSW 2000.

SOUTH AUSTRALIA

Cyclist Protection Association of SA
of SA Inc,
PO Box 132, St Agnes SA 5097

QUEENSLAND

Bicycle Institute of Queensland
27 Ninth Avenue
St Lucia, Qld 4067

VICTORIA

Bicycle Institute of Victoria
PO Box 1961 R
GPO Melbourne Victoria 3001
Hon Research Officer:
Alan Parker, ph: 562 194

Melbourne Bicycle Touring Club
Contact Caroline Chapman, 518 875

Anybodys Cycle Club
Contact John Ellis, 211 9181

Eastern Bicycle Touring Club
Contact: Alan Parker, 288 4893

Knox Bicycle Touring Club
Contact John Richards, 729 6405

Penny Farthing Pedal Club
Contact Table Valentyn, 691 469

Waverley Recreational Cyclists
Contact Brian Schauer, 561 2214

Youth Hostels Association Cycling
Cycling Club
Contact Kim Fawkes, 523 7476

Bicycle Institute of Victoria Touring Group offers help and advice to any one wishing to start a touring or general cycling club. All of the above clubs are represented by this group. For general touring info and club help contact:
Ruurd Snoekstra, ph: 329 7250.

AUSTRALIAN CAPITAL TERRITORY

Pedal Power ACT Inc
PO Box E 305
Canberra ACT 2600

WESTERN AUSTRALIA

Cycle Touring Association of WA
31 Bruton Street
Balcatta WA 6021
(Nicole Harrison)

NORTHERN TERRITORY

Stewart McGill
PO Box 3046
Darwin NT 5794

TASMANIA

Pedal Power Tasmania Inc
102 Bathurst Street
Hobart Tas 7000

Pedal Power Tasmania Inc
87a Bathurst Street
Launceston, Tas 7250

Since publication of *Freewheeling* 1 in January 1978 we have had many enquiries from our readers wanting to know who we are, what our basic philosophy is and what we plan to do in the future. So, to briefly explain: Freewheeling Australia Publications was set up by a small group of people actively involved with the Bicycle Institute of NSW. We felt that there was a need to offer a publication on a national basis which would spread good information and so bring together all Australians who share an interest in bicycling as a means of transport and recreation.

We chose to produce a quality quarterly magazine of information and record called *Freewheeling Australia*. With this magazine we want to keep Australia informed as to what's happening about us both here and elsewhere on the planet we share, as bicyclisation meets the energy crunch head on. There is no doubt that, within the life span of this magazine, we will see profound changes occurring to our ways of life as the oil wells run dry.

In all ages there are those who must look into the future with their feet firmly in the present. What we fear is that the violence of motorised transport which kills, maims and pollutes, will give way to greater violence. We feel that by acting now, by seeking real and non violent alternatives to our present modes of transport we can bring about the social acceptance necessary to ensure mobility and peace for all. In short, bicyclisation is non violent social change for a world caught up in changes brought about by diminishing energy supplies. You will hear more as issues come about bicycles and energy.


Meanwhile cyclists and those of us who venture onto the streets of our urbanised country need to survive and maintain ourselves. We hope to inform readers about all aspects of bicycle safety and maintenance as well as encourage discussion about these and other issues which are vital for the urban cyclists daily survival. *Freewheeling* is a forum for discussion on issues facing the modern cyclist, produced and distributed by cyclists themselves.

There has been a resurgence of interest in the bicycle in most western countries of late. Much of this has come about as a way out of increasing bad health and transportation boredom. Bicycle touring and recreational urban cycling have become popular with large numbers of people in the USA and the same is underway here. We hope to offer advice and information for those who enjoy the wonderful feeling of hearing only the sounds the wind and tyres make on a quiet road. Do it yourself articles will also appear in future issues to help you help yourself and make or build items of equipment and do your own repair-work, as well as survive a wet ride.

Freewheeling Australia Publications is a non profit publisher. With the money raised from the sale of *Freewheeling Magazine* (when there is a surplus) we hope to publish books and guides to further inform all cyclists. We hope in this way to influence the flow of information in favour of quality and away from crass materialism. We have a long way to go and welcome your help, advice, and comments.

FREEWHEELING 2 PRODUCTION

Layout: Jennie Doyle, Jenny Coopes, Netta Perrett, Pat Fiske, Gean Melone, Warren Salomon.

Typesetting: Propaganda  660 0037.

Printed by: Thumbprint, 5 Knox Street, Chippendale NSW 2008. Telephone [02] 211 1089.

Published by: Freewheeling Australia Publications, PO Box 57, Broadway NSW 2007.

Next issue due: Winter 1978.

Freewheeling



CONTENTS

NUMBER 2 (1978)

LETTERS	2
---------	---

ARTICLES

THE GEELONG BIKE PLAN	5
BICYCLES, ENERGY AND EQUITY	12
US LEGISLATES ON BICYCLES	14
WOMEN NEED BICYCLES	16
LIKE FISH NEED WATER	18
BICYCLES AND SAFETY	18

BICYCLE TOURING

THE BORDER RANGES FROM A BICYCLE	20
TRAVELLING POETRY	26
TOURING IN WESTERN EUROPE	27
ARMIDALE TO URUNGA	28
FIRST AID KITS	31
WET AND COLD CONDITIONS	32

DO IT YOURSELF

HOW TO MAKE YOUR CAR INTO A BICYCLE TRANSPORTER	34
BUILD YOUR OWN KIDDIE SEAT	35

RESOURCE MATERIALS

PUSH ON	36
LOOK OUT! HERE COMES SPROCKET MAN	38

*Recommended retail price in Australia.
This publication is registered for posting Category B.

Cover: On the Sydney Harbour Bridge Cycleway. Photo Nigel Jenkins.

Dear Freewheeling

I thought I would write so that you could gauge at least one 'outsiders' reaction to your new magazine.

Firstly, I should say that I thought it was a great magazine, good information and well produced. There are quite a few good ideas there, and I believe that every effort should be made to circulate the magazine nationally.

A major complaint I have is the list of bike shops for the Sydney area. I believe the aim of the magazine is to assist the cyclist as well as provide information. I believe it would have been better to list those known to be good (or cheap) and just add on as people give more information about their own preferred cycle shops.

I am bringing this up because the two cycle shops that I would go to are not listed, while one shop that you listed has an established local reputation as a 'butcher'. My own local bike shop that I go to is 'Bazza and Tony's' cycle shop in Gympie. Not only is he (Bazza Synold) a good repairperson and gives free after-sales services, but he will put himself out to obtain anything requested by the customer. He is one of the few people I know who exists for the customer, not for the cycle companies.

The point I'm trying to make is that if you give a directory of cycle shops in your magazine, people are going to trust the opinion of the magazine.

The other point that I just wanted to make is the extreme attitude expressed on the article 'Bicycle Safety and You'. Charles Coin's comments were generally quite useful and I suppose that to the cyclist who is not well informed the article was helpful. However, if I had just bought a \$200 push bike after saving up for a year and read the article I would be just about ready to cry. Having centre-pull brakes, I would feel that I didn't have good brakes because they weren't sidepulls. What was not mentioned was that if they weren't made precisely, sidepulls aren't worth having. And to have precise sidepulls it's going to cost from \$35 on. Who said cycling wasn't for the idle rich?

Moving along . . . the comment about 'touring levers' (as grossly dangerous and ' . . . if owning a bicycle with these then please remove them') is a bit extreme I felt. After all, instead of outright condemning them, why not advise that these levers are only for slowing down. They were never designed to completely stop a pushbike anyway. Leave it up to the individual to decide whether they want them or not.

Another 'safety' idea I found a bit strong was the advice that everyone should get alloy rims. Being a tourer, if I took this advice I'd be getting a new set of rims every month. I'll stick to

2 Freewheeling



Letters

my steel rims, stopping power or no stopping power.

Thirdly, I find that the comment of the leather padded rib type of helmet being 'virtually useless' a bit biased.

Hoping to hear from you.

David Cholson

The listing of bike shops was done as a service, and the method of research was done by the Yellow Pages. We realise that this method is imperfect due to the fact that

1 some bike shops have no 'phone nor are they interested in listing in the book, and

2 due to the changing nature of bike shops some give better service than others.

We are hoping to continually update our list of shops and to include a list of shops in other states in future issues. Below find an addition to the cycle shop list of last issue.

The Editors

Bikeshops Not in Freewheeling No 1

Bazza & Toni, Shop 3, Tathra Place, Gympie. 8-6 Mon-Sat; 10-12 Sun; Hire and General.

Dave's Place

Hornsby Cycle and Sport Store, 189 Pacific Highway, Hornsby. Phone 473 738

Narrabeen Cycle Centre

South Hurstville, 789 King Georges Rd, South Hurstville. Phone 547 1391. Hours 8-5.30 Mon-Fri; 8-12 Sat. General

Waitara Sport Store, 12 Waitara Avenue, Waitara. Phone 482 373.

Dear Freewheeling

We recently received copies of your new magazine *Freewheeling*, Summer 1977-78 and wish to congratulate you on an

excellent production. We note you have included our shop in the Bike Shop Directory but we have found a couple of misprints.

1 Our phone numbers are either 29 1278 or 29 4608.

2 Our street number is 75 (not 25).

3 Our suburb could best be identified as City or Sydney (not Wynyard).

4 We specialise not only in accessories but have a large range of cycles for all ages, particularly touring cycles.

Regards,

Tony Cook
Clarence Street Cyclery

Dear Freewheeling

Your article on Bicycle Safety by Charles Coin is a good idea but a few points in it need explaining please.

The stopping distances for alloy and steel rims in dry and wet weather are confusing. Page 12, col 2, last paragraph surely should have 10' = 3 m, not 2 and 17-20' = 5-6 m, not cm.

But more obscurely, on page 11, col 1, please clarify the wet braking distance for alloy rims — 'normal dry distance plus the circumference of the wheel'? This sounds too mystical and highly understated in the light of the reasonable figures quoted above, ie twice dry weather distance.

Also, I think the writer is unfairly dogmatic about touring brake levers on page 12, under Brakes. To justify his condemnation I'd like the writer to explain this 'feel' which is so desirable and to suggest how the 'feel' is used to prevent wheel locking or whatever. I think motorcycle braking has a useful parallel: eg 'On a flat safe area and dressed protectively, the rider should practice braking as hard as possible, beginning at slow speeds, using one brake at a time. The speed can be increased the second brake added and different ground surfaces used, to develop a feel for the hardest safe application possible.'

Finally, do the alloy figures assume smooth or knurled surfaces?

A very useful article otherwise and very enjoyable issue overall.

Push on,

George Barnes

The wet braking distance for alloy rims was expressed as — 'normal dry distance plus the circumference of the wheel'. The figures provided later show that for alloy rims the difference between the wet and dry distances is 7 ft which happens to be the circumference of a normal 27" wheel. The mechanism that is known by experience and substantiated by the figures is that on the first application of the brakes the rims are wiped of water and on the second revolution

the normal braking commences. Steel rims are much more difficult to wipe and hence have greater braking distances.

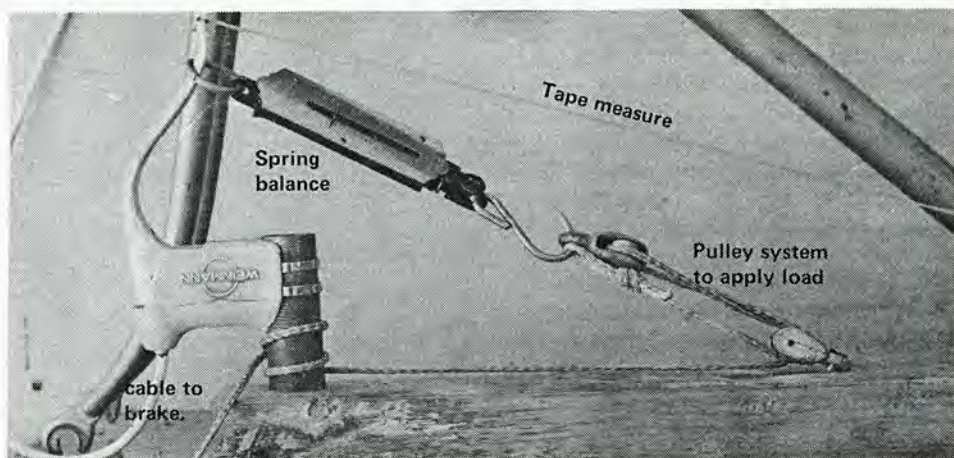
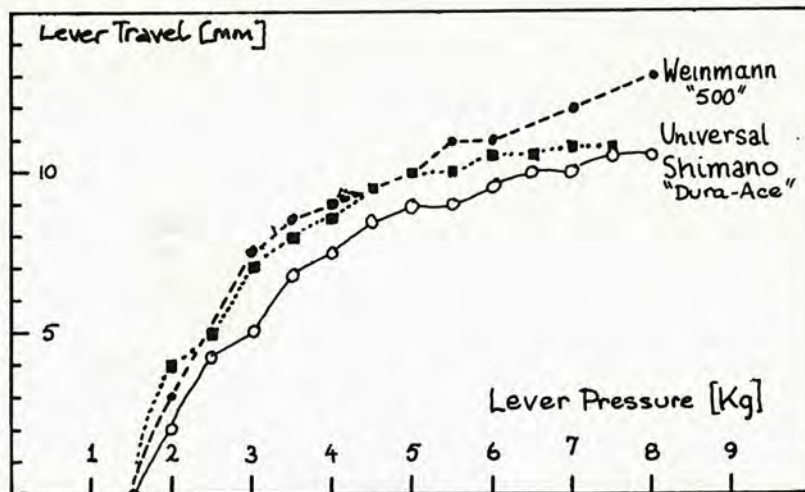
For those with a non-scientific bent I will first describe 'feel' as being the degree of feedback from the brake pads on the rim to the hand via the whole braking mechanism. For those with a scientific/engineering leaning the feel can be expressed by a stress/strain curve as in fig 1. These are preliminary results only using the apparatus illustrated in fig 2. The brakes tested were all in fairly new condition. All of the brakes tested were of the sidepull variety, nevertheless it can be 'seen that Weinmann 500' brakes are quite distinctly more 'spongy' than the rest. It must also be noted that the lower the brake blocks are placed then the greater the 'sponginess'. I hope to produce better results later.

I would dispute the parallel drawn between motorcycle braking and bicycle braking. The motorcycle has a much lower centre of gravity and I have never heard of a motorcyclist turning their bike over the front wheel under normal conditions.

Regarding knurled or smooth rims it has been found, after experimentation by Weinmann, that smooth rims were superior and Weinmann are now using this fact in the marketing of their new range of rims.

Chas Coin

Fig 1: Right
Fig 2: Below



karrimor

ADVENTURE WHEELING

There's nothing quite so enjoyable as touring by bicycle, providing that the machine and its equipment are tailored to your personal needs. If they are not, riding will be much less easy and carefree than it should be, detracting from the sheer fun and pleasure of wheeling independently and contentedly along. Choose with care.

Of course, cycling is healthy, economical, environmentally desirable, instructive, enjoyable and many other good things.

They are all quite incidental though real attributes. The main thing is that it provides a complete release from tension, is good fun, and engenders a philosophy of life which is tolerant, takes things as they come, and generally provides exactly the antidote to modernity which many seek — and increasing numbers find — on a bicycle, of all things !

**a complete range
of bags and racks
to carry the load**

At your local bike shop

Sole Australian Distributors

OUTDOOR AGENCIES

148 Queen St ALEXANDRIA NSW 2015 (02) 699 7698 698 3860



The Natural Way to Go

Fresh air. Good company. Healthy outdoor freedom.
It's the world of Raleigh that more and more people are
discovering every day.
Raleigh is the quiet, fun way to get there — whether it's a
quick trip to the shops, or around the block, or to those
peaceful, secluded spots you could never reach by car.
British to the boot-heels, Raleigh combines superior
performance with the finest in cycle technology. But what
else would you expect from, the world's largest cycle maker?
Get together with a Raleigh. At your local cycle specialist.

RALEIGH



Geelong Bike Plan

At last recognition for cyclists



With the approval of the Geelong Bike Plan study in Victoria comes recognition for cyclists as equal and legitimate road users. The study found in its extensive research that 'all streets are bicycle streets and that cyclists are everywhere.' Rather than try to build a bike path system which would be analogous to building freeway systems for cars, the planners have opted for an upgrading of the existing road network in Geelong to allow cycling to develop in relative safety. The plan is critical of past moves in the United States where many separate bikeways were built and fell in to disuse as cyclists continued to use more direct routes such as main and secondary roads.

In the following pages we have outlined the basic thrust of the study as it applies to Geelong in Victoria. Equipped with this study and its planning method groups of cyclists can now begin to get things going in their own localities.

Of the four E's outlined in the plan the Engineering section is not applicable outside of Geelong. However the Education Enforcement and Encouragement programs could well be implemented anywhere in Australia with an appropriately redesigned Engineering section. Thus the Geelong Bike Plan is not to be seen as something of significance for cyclists in Geelong, Victoria but as a major step in the growth and development of cycling through Australia.

The following summary was compiled by Alan A Parker of the Bicycle Institute of Victoria who, with other cycling activists, provided valuable input and impetus to make the acceptance and implementation of this important study a reality. The result is a plan for Australians which will, in time, provide a real solution to the energy shortages soon to befall us all.

Introduction

In September 1976, the Victorian State Cabinet approved the conduct of the Geelong Bikeplan study.

The main objective of the pilot study was to determine how the goals of increased bicycle safety and use could be achieved in a major urban area prior to implementation in Melbourne and other Victorian provincial cities.

The findings, results and recommendations of this study are contained in this report. The proposals for Geelong now warrant the commitment of the State Government to the immediate implementation of the plan as a whole throughout the Geelong urban area.

Within 12 months of implementation in Geelong, safety education trials in primary and secondary schools would be complete, monitored, and ready for wider use. The enforcement program would be under way and evaluated to ensure that continuing programs are of maximum benefit to all road users as well as to increase cycle safety. Engineering improvements, both on and off the road, will be advanced to such a stage that standards and requirements of bicycle facilities will be further tested 'on the ground'.

The results of this study show how to provide for safer cycling in existing cities similar to Geelong and Melbourne. The report describes the 4 E's program approach — Engineering, Education, Enforcement and Encouragement — and explains why it is the way for bicycle planning to proceed. These programs, together with the planning procedures developed so far, are models for bicycle planning and implementation throughout Victoria, and particularly in Melbourne, where the problems of scale and cost are so much greater.

The Need for a Bikeplan

In recent years the use of the bicycle has increased spectacularly. Increasing costs of car ownership and transport, the desire for improved physical health, interest in recreation, and growing concern regarding the conservation of liquid fuels, suggest that the bicycle's role will continue to grow.

Bicycle sales in Victoria have increased nearly sixfold in the last 10 years. The estimated current bicycle use in Geelong and Victoria is 15% of the population; that of some overseas countries approaches 60%, whilst in the United States 43% of the population rides a bicycle.

Associated with the use of the bicycle in Victoria has been an unacceptably high rate of bicycle accidents. The bicycle road toll in 1975 was 605 cyclist casualties including 16 killed. In 1976 it was 723 casualties with 37 cyclists killed. The per capita rate of accidents to bicycle users in Victoria is about 3 times that of the United States, whilst the majority of these accidents are suffered by school-age children.

Some 72% of bicycle accidents occur to the 7-17 year age group, whilst the 12-14 year age group alone accounts for around 33% of the total accidents reported. These accidents were largely initiated by the cyclist. In 1975 the cause of some 70% of all Victorian fatal bicycle accidents and 65% of all Geelong bicycle accidents could be attributed to the cyclist.

There is thus an urgent need to provide an overall plan for the current and growing use of bicycles to ensure that more cycling also means safer cycling.

In Geelong (like other major urban areas) there is a lack of both on and off the road facilities. Despite a cyclist population of nearly 20 000 in Geelong, use of bicycles has been ignored in planning over the past decades. This neglect has coincided with a period of steadily increasing motor traffic volumes and congestion.

Recent bicycle planning has been hampered by overseas practices of planning to spend large sums of money on construction of bicycle lanes and paths, without adequate information on the 'real' requirements of the bicycle rider. Basic transportation concepts were often forgotten in the attempt to get the bicycle off the road and out of the way of the car driver.

Similarly, the bicycle can not, however, be considered the panacea to all problems of transportation, energy conservation

and the environment. While the cyclist's fundamental need is for a safer movement system measures cannot be introduced that are detrimental to the safety of other road users, such as pedestrians and motorists. Compatibility and equity are essential.

Bike planning proposals must be developed on a thorough and rational basis. Realistic and effective plans require a solid foundation of facts about existing and future demand, the real needs of bicycle riders and what they will and will not use. Motorists' preconceptions of cyclists' needs must be treated with caution.

Victoria (as a state) and Geelong (as a major provincial centre) cannot afford to provide facilities that will not give the public an adequate return on their investment. The bicycle planning objectives of safety and use, together with efficiency, mobility and pleasure must be satisfied whilst providing a plan that is low in cost, flexible and economical.

The misconception that total physical separation of bicycles from motor cars is an absolute necessity to ensure rider safety and accessibility, is supported by very few bicycle riders. Attempts to remove the cyclist from the vast network of roads that are built and maintained to provide direct access to all destinations are subject to growing criticism. To believe that there is enough money, 'will' or public support to warrant introduction of what amounts to a complete network of (albeit narrow) bicycle freeways, involving land acquisitions and property demolition in the existing urban areas of Geelong and Melbourne, is obviously unrealistic.

Even if such networks were attempted, analysis of cyclists' requirements shows that bicycle riders themselves would still use the existing roads for most of their journeys. Cycling from home to a friend's home, to a swimming pool, to school, to shops or to work, is generally most directly catered for by roads.

Reality must be faced. It is simply not possible to create comprehensive, separate bikeway systems to any significant extent in most of the existing major urban areas such as Geelong and Melbourne.

Road space is a high cost utility, maintained at ever-increasing costs. It is there, in place, ready to serve a transportation purpose for commuters, recreation riders and school children alike. Combined with sensitive and appropriately placed off-road paths along rivers, creeks, waterfronts and open spaces, together with short-cut paths to schools and other short connecting links, a practical system is attainable at low cost, on a flexible demand-based approach to bicycle planning.

In new urban areas, provision for bicycles can be made at the planning stage. Sufficient width can be provided in the kerbside lane for bicycle riding on main roads or a separate path can be planned within the road reserve. In new neighbourhood design, where open space spines link residential areas to schools, shops and community facilities, bicycle paths can be easily incorporated at the planning stage (eg Canberra and Crestwood in Perth).

But for the long-distance commuter trips and for the majority of trips in the existing urban areas, integration of the bicycle into the traffic stream is the only legitimate and logical answer — an answer that is supported by the majority of bicycle riders themselves.

The Geelong Bikeplan as outlined in this report, achieves all these requirements. It provides for the increasing use of bicycles by making their use safer. It integrates the bicycle into the existing road system, whilst setting guidelines for providing for separated systems in newly developing areas. It recommends solutions to the problems of today's bicycle riders, whilst providing a plan for the cyclist of tomorrow. The proposed solutions are economic and can be implemented in stages.

The plan itself is based on the '4 E's': Engineering, Education, Enforcement and Encouragement. This plan represents a comprehensive four-pronged attack on the problems of cycle safety and use.

Investigations for a Bikeplan

Extensive survey work was carried out in Geelong. The objectives were to ascertain the real needs and requirements of cyclists and

their patterns of movement; to discover people's attitude to cycling, the size and nature of the safety problem, to record deficiencies and opportunities in the existing road system, and to indicate the most appropriate techniques of meeting the needs of cyclists.

Surveys

- Questionnaire surveys of 15 000 secondary students and route surveys of 7 000 students.
- Surveys of 53 primary schools.
- Questionnaire survey (newspaper supplement) of adult cyclists and non-cyclists throughout Geelong.
- Surveys of businesses, industries, recreational and shopping centres.
- Field counts of bicycles at 150 locations.
- Inventory of all roads in the Study Area regarding cycling suitability.

Research

- Accident analysis.
- Review of Australian and overseas reports and data.

Liaison

- Formation of Bike Riders' Advisory Committee.
- Specialist technical advisors.

Public Involvement

- Newspaper survey, public exhibition, council consideration, public seminar, implementation projects.

Principles and Findings of the Geelong Bikeplan

The investigations and the evaluation of bicycle riders' needs form the basis of the bikeplan principles:

Cycle Use

- Every street is a cycle street: bicycles are ridden everywhere. The origins and destinations of the bicycle trips for children and adults are spread over Geelong. Surveys show that the journey to and from school by bicycle is only 20% of the total use.

The Geelong Bike Plan



- School bike paths alone could not significantly reduce the accident problem. Surveys show that whilst 64% of secondary students ride bicycles, at present only 27% of all students, on average, ride to school each day in Geelong, and would therefore benefit from a school bike path. Even if a school was provided with several bike paths in the future then these paths would only provide for at most 10% of the total bicycle use by pupils at that school.
- The cycling population is predominantly young, ie about 90% of bicycle use in Geelong is by people under 18 years of age with the majority of these being under 15 years of age.
- The greatest potential for an increase in bicycle use is with the adults and school children over the age of 15 years.
- Cyclists use and favour main roads which are direct, have a good surface condition for cycling, have priority at intersections, are often signalised and contain most destination land uses.

Cycle Safety

- Young cyclists initiate too many accidents. For cyclists up to 17 years of age 71% of accidents are attributed to errors by the bicycle rider. When considering cyclists up to 17 years of age involved in fatal car accidents in Victoria, 90% of these were initiated by the cyclists.
- Most bicycle accidents involve children. Cyclists under 17 years of age account for 75% of all reported bicycle accidents. Only one-third of accidents involving cyclists aged 7-17 years occur during the weekday hours of 8-9 am and 3-5 pm.
- Accidents occur everywhere: some 60% occur at intersections. For the under 18s one-third of their midblock accidents occurred on safe 'residential' streets. About 42% of all accidents involve right-angled collisions and 69% of right-angled collisions occur at uncontrolled intersections.
- Accident severity is greatest at night. On a wet night, a cyclist is 50 times more likely to receive a fatal injury in an accident than on a dry day. Less than 40% of the bicycles involved in accidents at night were known to have carried some form of lighting.

Cyclists' Needs

- Cyclists' main concerns are for: control of intersections, a smooth clean riding surface, adequate kerbside lane width, short-cut paths, recreational paths, secure parking facilities and improved car driver behaviour.
- For Geelong's adult cyclists improved safety on main roads and at intersections is required as approximately 80% of adult cycling is carried out on these roads. Main roads are direct, have priority and controlled intersections, are well maintained, and contain most of the cyclist's destinations.
- Young cyclists (and anxious parents) want residential streets free from excessive through-traffic and with low vehicle speeds and safe routes to school. Optional alternative routes away from main roads are also required.

Key Issues in Bicycle Planning

- Complete off-road bikeway networks are not practicable in existing urban areas such as Geelong and Melbourne.
- The bike lane (identified by either line marking or a kerb) is not needed where there is sufficient width on the road; where the road is narrow, heavily trafficked and hazardous, it cannot be provided. The signed bike route rarely serves a useful function.
- The bike path should be incorporated in the planning of new urban areas. In existing urban areas its role is limited to recreational routes and short link paths to schools and businesses where opportunities exist through open space areas or in the outer suburban fringe.
- Cycling on footpaths should only be permitted (by legislation and signing) at specific locations such as squeeze points and areas of minimum pedestrian use. The law prohibiting footpath riding needs to be enforced selectively and fairly, to permit responsible use of short lengths of path while penalising cyclists who endanger pedestrians.

ACTION PLAN

NODAL ACTION

- * ELIMINATE SQUEEZE POINT
- x RESURFACE & POSSIBLY MODIFY RAIL CROSSING
- INTRODUCE SIGNAL CONTROL OR CROSSING
- MODIFY EXISTING TRAFFIC SIGNALS
- ◆ IMPROVE SAFETY OF INTERSECTION

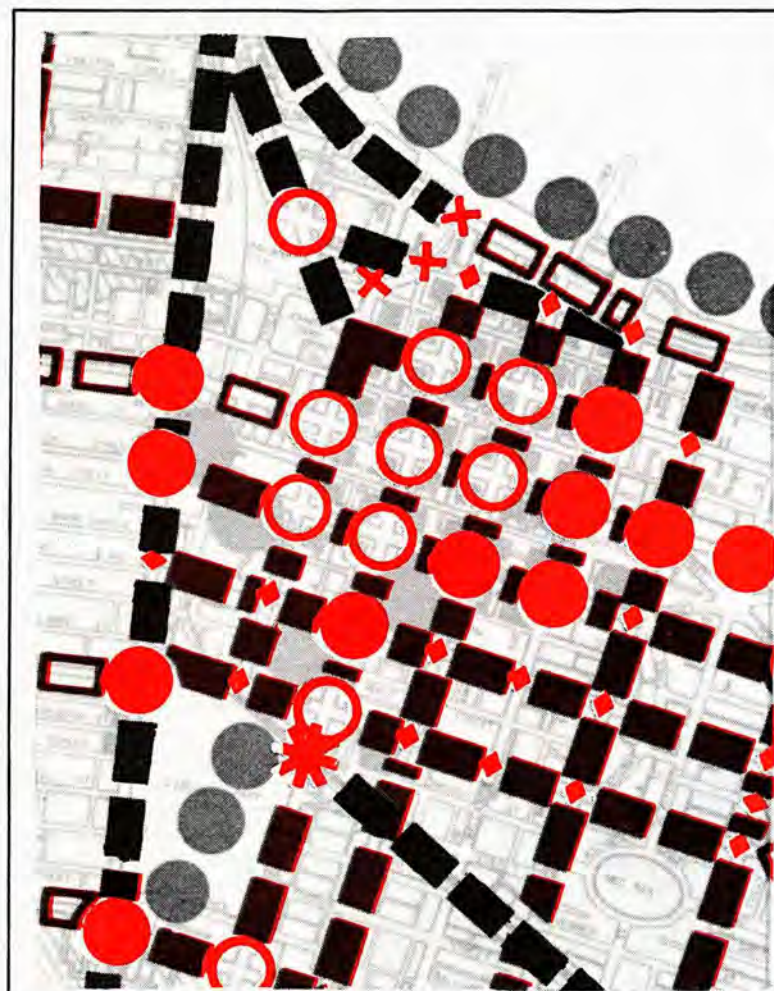
ROUTE ACTION

- BUILD BIKE PATH
- CATEGORY 1 ROAD ACTION
- ■ ■ CATEGORY 2 ROAD ACTION
- □ □ CATEGORY 3 ROAD ACTION
- ■ ■ CATEGORY 4 ROAD ACTION

NEIGHBOURHOOD ACTION

DECLARE CYCLE PRECINCT

PLAN NEW AREA



The Geelong Bike Plan

- It is not practical to enforce a minimum age limit for cyclists. Rural and outer urban area families may be severely disadvantaged if children were unable to cycle to school and shops.

Summary of Principles

- Increased cycle use must be paralleled by increased cycle safety. Improvement programs should concentrate initially on the 8-19 years age group.
- Safer cycling requires education and enforcement programs in addition to engineering improvement. These programs should be aimed at both cyclists and car drivers.
- Engineering for safer cycling means improving the road system, not replacing it.
- Engineering, education and enforcement programs need to be backed up by awareness and encouragement programs.

Geelong Bikeplan Programs

The Geelong Bikeplan proposes to achieve the goals of increased safety and use by the '4 E's' program. This involves four action programs with the following objectives:

- ★ **Engineering** — to provide a safer road system and improved riding environment through physical improvements.
- ★ **Education** — to train cyclists to ride more safely.
- ★ **Enforcement** — to improve road behaviour of motor vehicle drivers and cyclists.
- ★ **Encouragement** — to promote awareness of improved facilities, safety, education and enforcement programs and the benefits of cycling.

Geelong Bikeplan in Action

Engineering Requirements

A strategy plan was developed for the Geelong urban area and 8 Freewheeling

from this a physical improvement action plan was determined that includes:

- Signalisation of dangerous intersections, elimination or avoidance of squeeze points.
- Improvements to main roads used extensively by bicycles: lane striping to provide a wider kerb lane width; school and pedestrian crossings; priority markings; resurfacing; increased maintenance.
- Off road bicycle networks in new urban areas currently under rezoning and development planning.
- Bike paths for recreational routes, school routes, access links, and as alternatives to using unsuitable arterial roads.
- Parking facilities.

Education Requirements

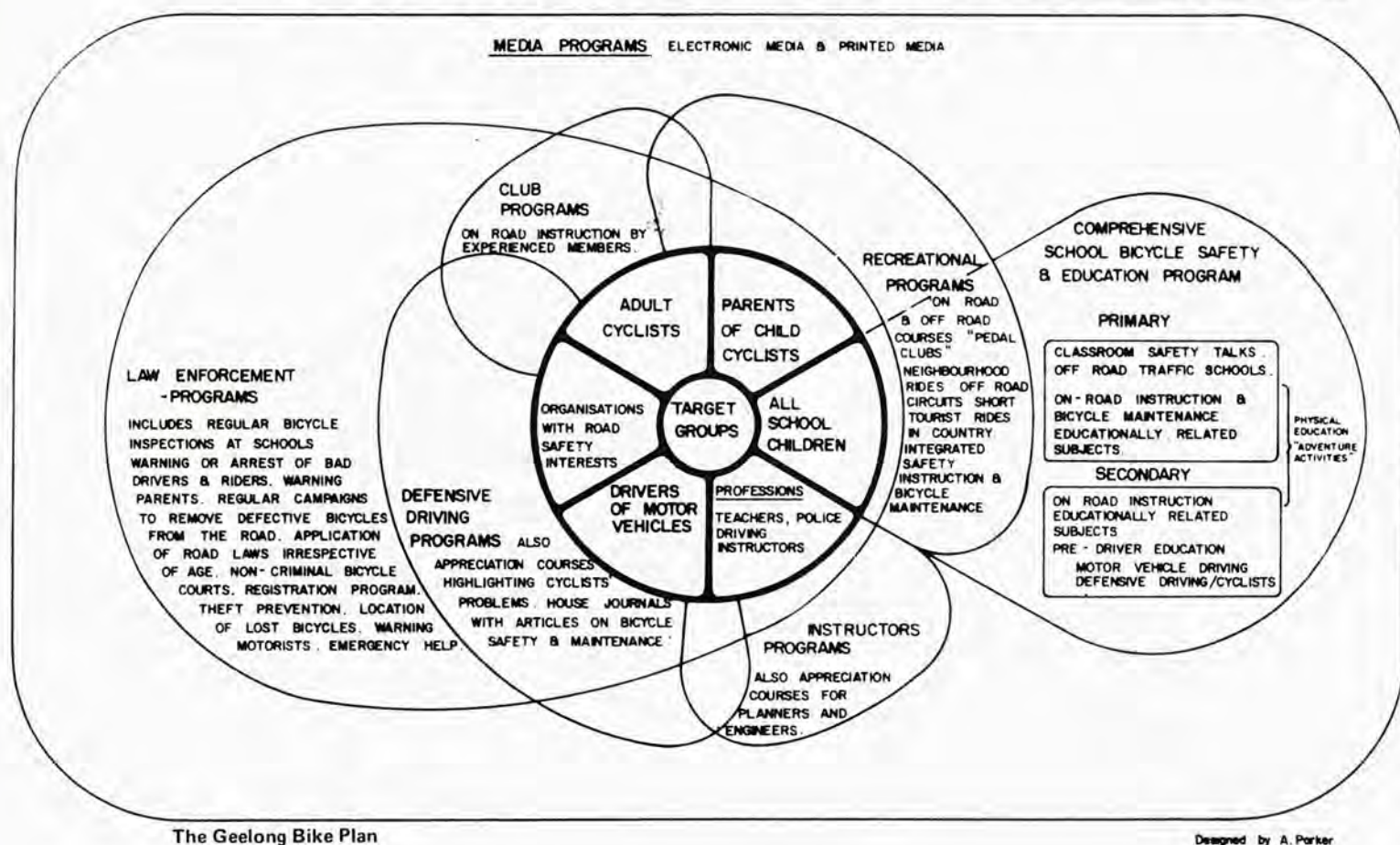
Safer rider education is mainly orientated towards school students by both on and off road training courses. Programs for adults will also be incorporated. Requirements include:

- Cycle proficiency and road safety training for primary and post-primary school students.
- Establishment of cycling clubs and rider training courses for adults.
- Improving bicycle standards and supporting the need for proper equipment via school, media, professional, business and retailer programs.
- Education of professional planners and engineers to include bicycle requirements in the planning of new areas, maintenance and construction programs.

Enforcement Requirements

Neither adults nor children, motorists nor cyclists, will consistently obey road rules without proper instruction and frequent reminders. Enforcement requirements include:

- Establishment of a special police safety team in Geelong (two



men plus motor cycles) to specialise in bicycle rider education and behaviour. This team to be in addition to the normal police complement in Geelong.

- Monitoring and enforcement of car driver and bicyclist's behaviour.
- Enforcement of bicycle riders' rights on the road.
- Bicycle related additions to car driver tests and pre-driver education.
- Enforcement of proper bicycle equipment standards.

Encouragement Requirements

Promotion programs are an integral part of the bikeplan. They will:

- Create an awareness of and contribute towards safety education programs and inform people of the physical improvements that are implemented.
- Improve motorists' awareness of cyclists and cyclists' behaviour. Enhance the effectiveness of enforcement programs. Increase recognition of bicycling benefits and stimulate bicycle use.
- Encourage private institutions to provide secure parking areas and changing facilities for cyclists.

Detailed analysis of accident statistics showed that the accidents that were occurring could not be solved by engineering means. The accidents were often initiated by cyclists' carelessness in regard to riding habits, their knowledge or use of the rules of the road, and the safety standard of their machines. Similarly, many problems also seemed to be contributed to by the motorist's ignorance of the cyclists' rights and his vulnerability.

These problems are largely behavioural, and large expenditures of moneys on physical improvement will do little to correct or improve these behavioural problems. Education and enforcement measures are needed. That is, the need to improve rider ability, road sense and conformity to the road laws, together with the

reciprocal requirement of improving the car driver's attitude and awareness towards the bicycle rider.

This integrated approach to education, enforcement and encouragement is shown in figure 6.1.

Implementation of the Bikeplan in Geelong

Implementation of the bikeplan in Geelong will be staged over five years. By this time safety will have improved and sufficient facilities been provided to cater for increased bicycle use.

Bike planning will not, of course, stop after five years. A continuing process of planning in new urban areas, extension of recreational routes, safe guarding of more commuter and school routes, and maintenance of existing facilities will continue.

Financial and Management Aspects

- The bikeplan will cost \$1.6 million (1977 prices) over the first 5 year period with the first year requirement being \$300 000. Assessment of the economic viability shows the benefit/cost ratio for the first five years alone is 4 to 1. If a full analysis period of 15 years is used then the benefit/cost ratio is 9 to 1, showing that the Geelong Bikeplan is a sound community investment.
- Management and co-ordination of the implementation of the bikeplan is to be controlled by a Geelong sub-committee of the State Bicycle Committee. This committee to comprise members of local councils, Road Traffic and Safety Authority, Geelong Regional Commission, Police Department, Education Department, Country Roads Board, Department of Youth, Sport and Recreation, and the Ministry of Transport. The provision for a secretariat to the committee to administer and control the implementation of the bikeplan is included in the total costs.
- The bikeplan is to be funded from a State Bicycle Fund (see



Melbourne Road 1926

The Geelong Bike Plan

next section). Contributing funds will also be required from involved authorities on a proportionate basis to be determined.

- Implementation plans for the total program would be fully developed by the second year. Engineering works would comprise the bulk of expenditure in the first year.

Implementation Proposals for the First Financial Year (1978-79)

- Monitoring of 40 kmh trial area and bike paths in Corio, Lara and Grovedale areas.
- Trial education programs in approximately five secondary and primary schools, monitoring and revision of programs.
- Establishment of police safety team.
- Implementation of top priority main road improvements, intersection improvement and off-main road bike paths. Network planning in new urban areas.
- Promotion programs aimed at increased community and car driver awareness of cyclists' problems and rights and the Geelong Bikeplan programs.

Trials of Bicycle Facilities in Geelong (1977)

In July 1977 a 40 kmh speed limit trial in residential streets was commenced over a 14 square kilometre urban area of Corio. The results of this trial will not be available until the end of 1978 as a 12 month test period is required by the Road Traffic & Safety Authority who are carrying out the assessment.

In the Shire of Corio and the City of South Barwon, six kilometres of bicycle path have been constructed of varying widths and construction standards. Similarly the full results of the usage of these bicycle paths will not be available until late 1978 so that both summer and winter use can be monitored.

10 Freewheeling

The issues are — accidents (large proportion of accidents to bicycle riders occur on residential streets), effect on vehicle speed (85th percentile vehicle speed on many residential streets around 48 kmh now), through traffic using some residential streets (reduction in vehicle speed will remove some of this traffic), traffic noise (reduction in vehicle speed will reduce noise impact in residential areas), stopping distance of vehicles (reduction in vehicle speed will reduce stopping distance necessary for vehicles), accident rate and severity (reduction in vehicle speed reduces accident severity and frequency and reduces speed difference between vehicles, bikes and pedestrians), vehicle operating costs (reduction in vehicle speed does not effect vehicle operating costs and lower acceleration and de-acceleration requirements actually result in cost savings), and overall cost savings induced by 40 kmh (estimated accident casualty rate reduction of a 40 kmh speed limit on residential streets combined with STATCON and METCON systems is about 34%).

Post 1977: Geelong—Melbourne—Victoria

Relevance of the Geelong Bikeplan to Melbourne

The proposals put forward by the Geelong study and in particular the 4 Es approach, will apply in principle to Melbourne.

Education, enforcement and encouragement requirements will be very similar. The engineering aspect will have to be tailored to specific local conditions to take account of: the greater size of Melbourne; the vast network of railways and consequently the use of dual mode travel; the use of sub-arterial roads as the 'main roads' for cyclists; and the higher levels of congestion and traffic.

Co-ordination of Bicycle Planning in Melbourne & Victoria

The formation of a **Joint Bicycle Planning Group (JBPG)** is recommended. The membership of this group to consist of full-time representatives from the following:

Road Traffic and Safety Authority
Country Roads Board
Education Department
Melbourne and Metropolitan Board of Works

This JBPG would be the working group for bicycle planning in Melbourne. It would also co-ordinate the implementation of future works. It could take advantage of existing administrative arrangements for funding and would have the ability to be formed from seconded staff (from parent organisations). The responsibility for the JBPG would be with the Minister of Transport. The overall broad policy direction to the JBPG on behalf of the Minister would be by the State Bicycle Committee. The State Bicycle Committee would also be responsible to the Minister of Transport, so that direction and control would be with one ministry. The new **State Bicycle Committee** should consist of representation from:

Ministry of Transport
Town and Country Planning Board
Country Roads Board
Youth, Sport and Recreation
Road Traffic and Safety Authority
Education Department
Melbourne and Metropolitan Board of Works
Police Department
Bicycle Institute of Victoria
Municipalities

For provincial cities direction and control would be by a local sub-committee of the State Bicycle Committee with the planning group being comprised of representatives from the local municipalities and planning authorities.

In regard to timing, it would be practical to commence pre-planning in Melbourne in 1978, detailed planning in the first region by 1979, with implementation commencing in that region by 1980. For programs that require implementation on a city-wide basis these could be implemented by 1980. Such a program would allow the results of the Geelong pilot project to be used in the Melbourne planning and implementation.

State Bicycle Fund

Implementation of bicycle programs will require significant government funding.

To facilitate this it is proposed to set up a special Departmental Trust Fund (the State Bicycle Fund) under the Minister of Transport. Special funds may need to be initially appropriated to this State Bicycle Fund directly from the State Budget's Consolidated Fund.

Contributing funds from involved authorities in bicycle programs will be required. Investigation of the proportionate basis of cost sharing would be one of the tasks of the restructured State Bicycle Committee after government approval to proceed with the Geelong Bikeplan.

Subjects for Further Investigation

Several aspects still require further investigation, these include:

- The costs/benefits/disadvantages of bicycle registration and bicycle rider licensing systems together with the enforcement aspects for bicycle rider offenders.
- Methods of separately funding the State Bicycle Fund.
- Use of freeway reservations by cyclists.
- The impact of Mopeds on bicycle facilities.
- Further research into the key variables that influence cycle flows, refinement of bicycle planning standards and improved collection and presentation of cycle accident data.
- The practicality of bicycle safety clothing, particularly compulsory crash helmet legislation.

Geelong Bikeplan Recommendations

It is recommended that Cabinet agree that:

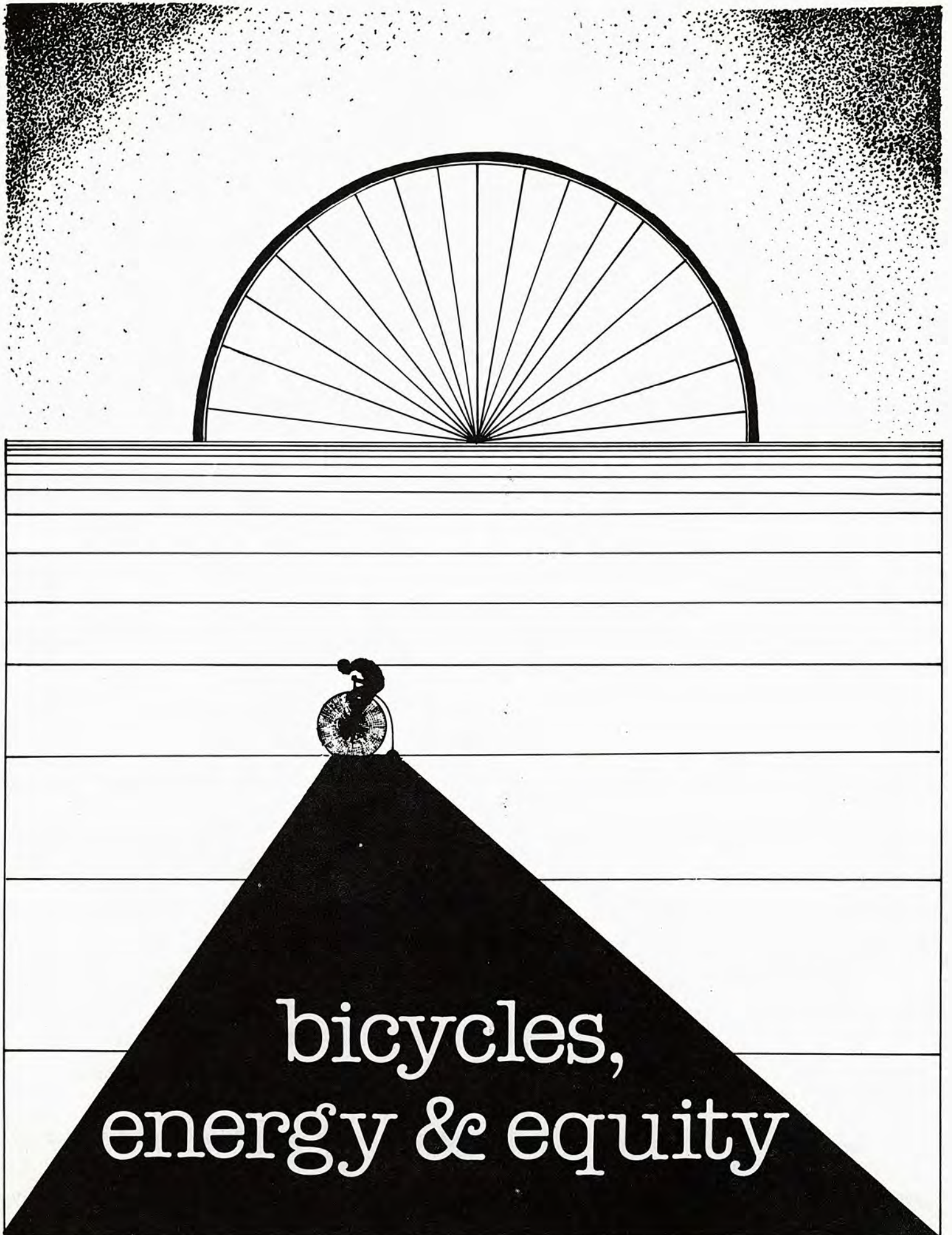
- 1 The Geelong Bikeplan pilot project as detailed in the attached submission, and the Geelong Bikeplan study report, be implemented throughout the urban area of Geelong, to allow further evaluation of proposed programs 'on the ground' such that they may be progressively evaluated, modified and optimised prior to implementation in other major urban areas.
- 2 The continued implementation of the Geelong Bikeplan pilot project be controlled and evaluated by a sub-committee of the State Bicycle Committee consisting of local representatives from the Ministry of Transport, Road Traffic and Safety Authority, Country Roads Board, Police Department, Geelong Regional Commission, Department of Youth, Sport and Recreation and the municipalities under the direction of the Minister of Transport.
- 3 A State Bicycle Fund be established under the control of the Minister of Transport. This Fund to be a special Departmental Trust account initially supported by direct appropriation of funds from the Victorian State Budget's Consolidated Fund.
- 4 This State Bicycle Fund to include provision for the first year costs (1978/79) of \$300 000 for the Geelong Bikeplan project, and to budget for the total five year program of \$1 600 000.
- 5 The Chief Secretary be requested to provide a detailed evaluation of the legal implications and field results of the current 40 kmh speed limit trial on residential street in Corio, Geelong after the trial has been under way for 12 months.

It is further recommended that Cabinet:

- 1 Issue a policy statement that the organisations responsible for traffic and transport planning and provision of transport services be directed to recognise the bicycle as a significant mode of transport, and to make appropriate provision for same in current and future transport and planning proposals.
- 2 Initiate the establishment of a Joint Bicycle Planning Group under the Minister of Transport for the purpose of planning and co-ordinating works within the state. This group to consist of fulltime representatives from the following departments:
Road Traffic and Safety Authority
Country Roads Board
Education Department
Melbourne Metropolitan Board of Works.
- 3 Restructure the State Bicycle Committee under the Minister of Transport to provide overall broad policy direction on his behalf to the Joint Bicycle Planning Group. This committee to basically consist of representatives from the following departments:
Ministry of Transport
Country Roads Board
Road Traffic and Safety Authority
Melbourne Metropolitan Board of Works
Youth, Sport and Recreation
Education Department
Police Department
Bicycle Institute of Victoria
Town and Country Planning Board
Local Government Engineers Association
- 4 Request the Minister of Transport to initiate the preparation of a strategy plan for Melbourne based on the findings and conclusions of the Geelong Bikeplan. This plan to be the basis of a detailed program and budget for submission to Cabinet prior to implementation.
- 5 Request the Minister of Transport to determine appropriate cost-sharing arrangements with authorities involved in the provision of bicycle facilities and programs.

This plan was approved and funded Monday, February 27, 1978.

Principal work carried out by Geelong Regional Commission. The full report costs \$20 and is available from the Department of Youth, Sport and Recreation, Melbourne, Victoria.



extract from 'Energy & Equity' by Ivan Illich

A century ago, the ball-bearing was invented. It reduced the coefficient of friction by a factor of a thousand. By applying a well-calibrated ball-bearing between two neolithic millstones, a person could now grind in a day what took their ancestors a week. The ball-bearing also made possible the bicycle, allowing the wheel – probably the last of the great neolithic inventions – finally to become useful for self-powered mobility.

A person, unaided by any tool, gets around quite efficiently. They carry one gram of their weight over a kilometre in ten minutes by expending 0.75 calories. People on their feet are thermodynamically more efficient than any motorised vehicle and most animals. For our weight, we perform more work in locomotion than rats or oxen, less than horses or sturgeon. At this rate of efficiency people settled the world and made its history. At this rate peasant societies spend less than five per cent and nomads less than eight per cent of their respective social time budgets outside the home or the encampment. A person on a bicycle can go three or four times faster than the pedestrian, but uses five times less energy in the process, carrying one gram of body weight over a kilometre of flat road at an expense of only 0.15 calories. The bicycle is the perfect transducer to match a person's metabolic energy to the impedance of locomotion. Equipped with this tool, people outstrip the efficiency of not only all machines, but all other animals as well.

The invention of the ball-bearing, the tangent-spoked wheel and the pneumatic tyre taken together can be compared to only three other events in the history of transportation. The invention of the wheel at the dawn of civilisation took the load off peoples' backs and put it onto the barrow. The invention and simultaneous application, during the European Middle Ages, of stirrup, shoulder harness and horseshoe increased the thermodynamic efficiency of the horse by a factor of up to five, and changed the economy of medieval Europe: it made frequent ploughing possible and thus introduced rotation agriculture; it brought more distant fields into the reach of the peasant, and thus permitted landowners to move from six-family hamlets into 100-family villages, where they could live around the church, the square, the jail and – later – the school; it allowed the cultivation of northern soils and shifted the centre of power into cold climates. The building of the first ocean-going vessels by the Portuguese in the fifteenth century, under the aegis of

developing European capitalism, laid the solid foundations for a globe-spanning culture and market.

The invention of the ball-bearing signalled a fourth revolution. It created an option between more freedom in equity and more speed. The bearing is an equally fundamental ingredient of two new types of locomotion, respectively symbolised by the bicycle and the car. The bicycle lifted peoples' automobility into a new order, beyond which progress is theoretically not possible. In contrast, the accelerating individual capsule enabled societies to engage in a ritual of progressively paralysing speed.

The monopoly of a ritual application over a potentially useful device is nothing new. Thousands of years ago, the wheel took the load off the carrier-slave, but it did so only on the Eurasian landmass. In Mexico, the wheel was well-known, but never applied to transport. It served exclusively for the construction of carriages for toy gods. The taboo on wheelbarrows in America before Cortés is no more puzzling than the taboo on bicycles in modern traffic.

It is by no means necessary that the invention of the ball-bearing continue to serve the increase of energy use, and thereby produce time scarcity, space consumption and class privilege. If the new order of self-powered mobility offered by the bicycle were protected against devaluation, paralysis and risk to the limbs of the rider, it would be possible to guarantee optimal shared mobility to all people and put an end to the imposition of maximum privilege and exploitation. It would be possible to control the patterns of urbanisation if the organisation of space were constrained by the power people have to move through it.

Bicycles are not only thermodynamically efficient; they are also cheap. With a much lower salary, the Chinese acquired a durable bicycle in a fraction of the working hours an American devotes to the purchase of an obsolescent car. The cost of public utilities needed to facilitate bicycle traffic versus the price of an infrastructure tailored to high speeds is proportionately even less than the price differential of the vehicles used in the two systems. In the bicycle system, engineered roads are necessary only at certain points of dense traffic, and people who live far from the surfaced path are not thereby automatically isolated as they would be if they depended on cars or trains. The bicycle has extended peoples' radii without shunting them onto roads they cannot walk. Where they cannot ride their bike they can usually push them.

Bicycles let people move with greater speed without taking up significant amounts of scarce space, energy or time. They can spend fewer hours on each mile and still travel more miles in a year. They can get the benefit of technological breakthroughs without putting undue claims on the schedules, energy or space of others. They become masters of their own movements without blocking those of their fellows. Their new tool creates only those demands which it can also satisfy. Every increase in motorised speed creates new demands on space and time. The use of the bicycle is self-limiting. It allows people to create a new relationship between their lifespace and their lifetime, between their territory and the pulse of their being, without destroying their inherited balance. The advantages of modern self-powered traffic are obvious, and ignored. That better traffic runs faster is asserted, but never proved. Before they ask people to pay for it, those who propose acceleration should try to display the evidence for their claim.

A grizzly contest between bicycles and motors has just come to an end. In Vietnam, a hyperindustrialised army tried to conquer, but could not overcome, a people organised around bicycle speed. The lesson should be clear. High energy armies can annihilate people – both those they defend and those against whom they are launched, but they are of very limited use to a people which defends itself. It remains to be seen if the Vietnamese will apply what they learned in war to an economy of peace, if they will be willing to protect the values that made their victory possible. The dismal likelihood is that the victors, for the sake of industrial progress and increased energy consumption, will tend to defeat themselves by destroying that structure of equity, rationality and autonomy into which American bombers had forced them by depriving them of fuels, motors and roads.

The bicycle also uses little space. Twelve bikes can be parked in the place of one car, six of them can move along in the space devoured by a single automobile. It takes two lanes of a given size to move 40 000 people across a bridge in one hour by using modern trains, four to move them on buses, 12 to move them in their cars, and only one lane for them to pedal across on bicycles. Of all these vehicles, only the bicycle really allows people to go from door to door without walking. Cyclists can reach new destinations of choice without their tool creating new locations from which they are barred.



U.S. LEGISLATES ON BICYCLES

President Carter's National Energy Program has finally come to rest on the bicycle. Two major bills, one in the House of Representatives, one in the Senate, were introduced last year to provide additional spending for bikeway facilities.

Senator Packwood of Oregon, who introduced the Senate Bill, noted the Federal Highway Program appropriates \$41 per car, truck and bus in the US for improving the nation's highways. On the other hand, Congress provides only 12½ cents per bicycle.

In 1976 a \$6 million appropriation was made by Congress for bicycle facilities. Over 500 applications came in response to this appropriation. Forty one projects received funding.

This seems astounding in the face of a recent survey conducted by the Bicycle Manufacturer's Association. The survey found that there are:

- 80 million bicycles in America;
- 8 million new bicycles joined the traffic mix last year;
- 58 million bicycles were brought by Americans in the last 5 years (10 million more than cars).

The survey also stated that bicycle sales will rise to 11 million by 1980 and 19.2 million by 1990.

Both bills before Congress call for an expenditure of \$45 million for bikeway facilities. The Bicycle Manufacturer's Association, not ones to miss out on a slice of the cake, requested that Congress make provisions for each bill to grant urban areas with populations of 50 000 or more special funds. The BMA also requested that the Federal Highway Act be amended to provide funds exclusively for bikeway facilities.

The BMA recommendations also included the following:

- 1 Because we need to know more about the state of the art of bikeways in this country, we propose a national study that would provide a foundation for future growth. The study would seek to provide answers to some of the following questions:

- a Developing a nationwide inventory of all classes of bikeways now in existence.
 - b Determining the mileage of all classes of bikeways in each state, perhaps broken down by major cities, counties etc.
 - c Determine the most popular type of bikeways among users:
- Class I — (Bike Path) — A completely separated right-of-way for the exclusive use of bicycles.

Class II — (Bike Lane) — A restricted right-of-way for the exclusive use of bicycles usually designed by signs and pavement markings.

Class III — (Shared Route) — A bikeway designated by signs generally indicating preferred routings for bicycles.

- d Determining community plans for building bikeways during the next five years: the number of projects in progress and projects planned for the future.
- e Determining how extensively existing bikeways are used — and how effectively they serve the recreation and transportation needs of cyclists.
- f Learning more about the maintenance and care of bikeways that are in existence; the manner in which they are maintained and steps taken to periodically improve them.
- g Determining the contribution existing bikeways are making to safety in the community; whether they are helpful in reducing the accident rate.
- h Developing a nationwide Atlas of bikeways — state by state — similar to today's motor vehicle road maps.
- i Determining the recreation programming use of bikeways — ie

Bike A Thons.

- 2 We propose that the Land and Water Conservation Fund be utilised to create important bicycle connecting links as follows:
 - a Bike paths between parks and recreational facilities.
 - b Bike paths between business and residential areas and parks and recreational facilities.
- 3 It is vital for the BOR (Bureau of Outdoor Recreation) to develop closer liaison with the Department of Transportation's bikeway planning under the Federal Highway Act.
- 4 We would like to propose expanding existing bikeways in parks across the nation. They should be build wherever they do not exist.
- 5 Take immediate steps under the provisions of the Railroad Revitalisation Reform Act of 1976 to assure that the 6 232 miles of abandoned railroad rights-of-way are acquired for conversion to bicycle paths and other recreational and transportation uses.
- 6 We propose placing greater emphasis on sponsoring bicycle safety programs, such as rodeos, inspections and training in parks and playgrounds.
- 7 We propose considering the practicality of converting existing single purpose foot and horseback trails to multiple uses which would encompass bikeways.

8 Support legislation proposing a study of three transcontinental bicycle routes which the BOR previously opposed.

9 Finally, we propose the BOR reconsider its position on legislation it also opposed: a study of the 1 000 mile route — the Pacific Coast Bike Trail from Canada to Mexico.

Meanwhile, whilst the BMA is busy lobbying for bikeways in Congress, other plans are afoot to promote bicycle use. The National Energy Act calls for a major study by the Secretary of Transportation on how best to stimulate increased use of the bicycle by all Americans as an energy saving device. The House of Representatives Bill states that if 5% of commuters now using cars switched to the bicycle, petrol savings would total more than 780 million gallons.

The Washington DC Manual on Uniform Traffic Control Devices now includes a section titled 'Traffic Control for Bicycle Facilities'. This section deals with bicycle use, signs, pavement markings and signals on bikeways and highways. The MUTCD is aiming at a standardisation on a nationwide level of bicycle controls.

The Environmental Protection Agency has appointed a woman as bicycle coordinator. Her position is concerned with providing programs dealing with bikeways, provisions for employer participation in

programs to encourage employees to use car pooling, van pooling, public transport, bicycling and walking, and to promote programs for secure bicycle storage facilities and bicycle lanes.

The General Services Administration has initiated action to provide better bicycle parking facilities in federal buildings. A feasibility study is being done by the Public Service to determine parking needs, space available and cost on a nationwide scale.

A pilot program installing 20 bicycle lockers at various buildings has been initiated.

The Department of Transport has initiated new projects such as 10 regional workshops on bicycle safety.

The Consumer Product Safety Commission is funding 13 community groups and 32 educational groups at \$2 000 each to stimulate bicycle planning and bicycle education programs.

The Department of Transport has spent one year and \$20 000 to evaluate 11 bicycle routes throughout the country.

These programs are all initiated in Washington DC, the nation's capital, but will hopefully stimulate other cities across the US to originate their own bikeways. With a little help, and money from 'above', the American public will climb out of their —gas-guzzlers and onto the seat of a bicycle.

CYCLES AUSTRALIA

PROPRIETARY LIMITED

CYCLES PEUGEOT—CYCLES MADISON
Available from your local Cycles Australia Cycle Specialist



cycle specialist

SOLE AUSTRALIAN DISTRIBUTORS OF SWIFT, LOCAL, SPRITE and ASHBY

CYCLES PEUGEOT



MADISON

Women Need Bicycles Like Fish Need Water or The Push-Bike is an Aid in Self Defence

by Juel Briggs

Bicycles may prevent rape in its broadest sense. As women some form of physical protection in many public places (and private — but I won't deal with that here), most of us have traditionally found some suitable friend or appendage for such situations.

Swap the man for a bicycle, the advantages are numerous —

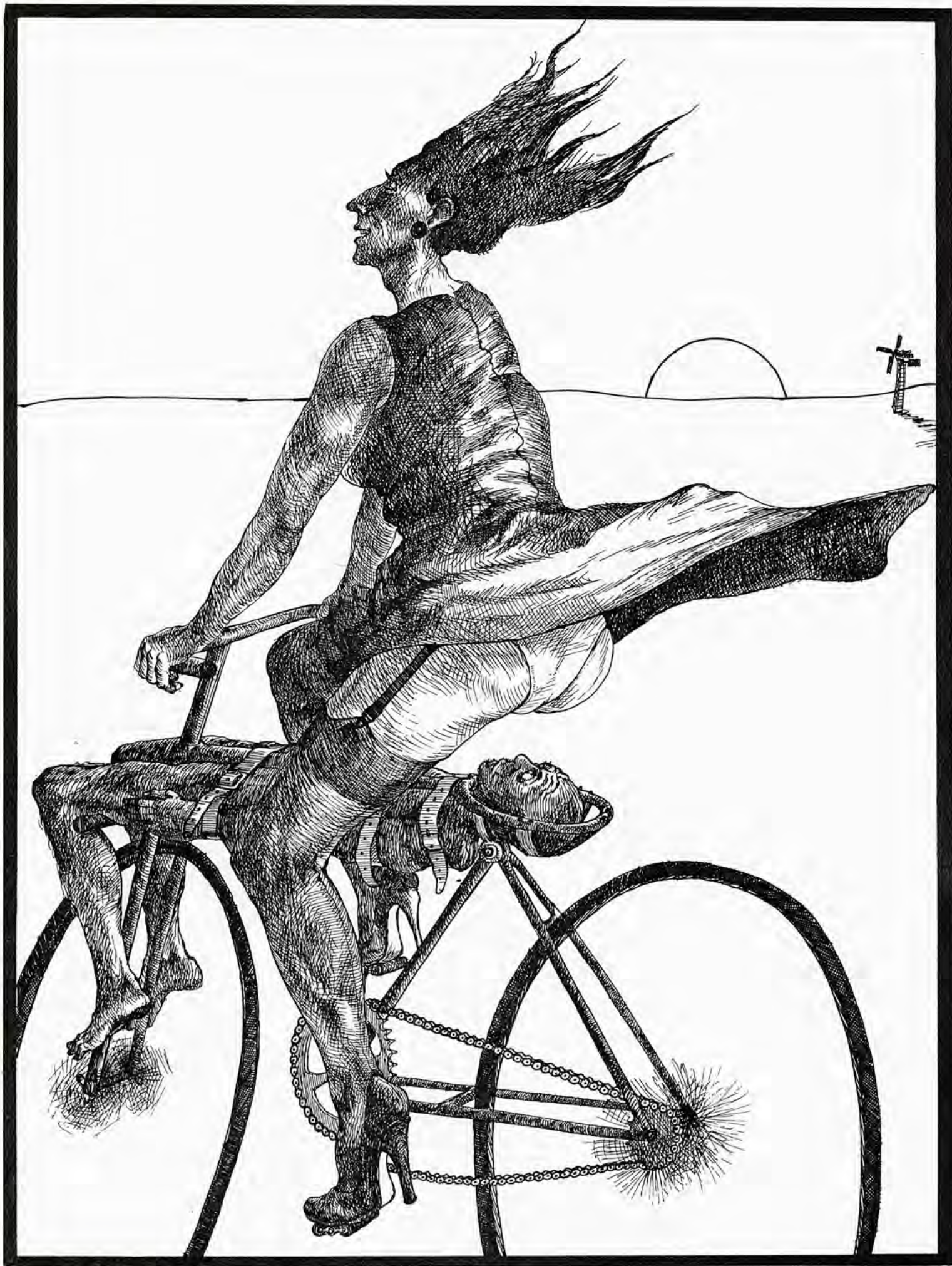
- 1 You are physically independent — go places when and how you want. This leads to psychological freedom.
- 2 Riding increases co-ordination and strength. I found that what I previously thought were limits (especially with stamina) were actually a low estimate. But this does depend a lot on the individual; so take it easy at first.
- 3 Another thing that increases independence from males is lack of reliance upon local garage mechanic as is the case with cars. Pushbikes are simpler than cars — even a beginner can do most common repairs. Repair work also puts you in an analytical, clear frame of mind.
- 4 To survive bike riding in the city traffic one needs to be alert and defensive. Generally this attitude

spreads to everyday life, judgement gets faster and better.

- 5 Disrespectful drivers are wonderful things to get rid of pent-up, male-induced frustrations on. Practise socially repressed aggressions in a constructive manner by demonstrating to car drivers the rights of cyclists. Catch the offender at the next set of traffic lights and tell them that you are entitled to 8 feet of road width and normal rights of way. It usually makes their eyes pop out in surprise. Be nice and return their eyes.
- 6 Pushbikes are nasty things to wrap around the legs of an attacker. Spin it round you in a horizontal position, or just throw it. Spokes and skins don't mix. Lock-up chains are pretty good used this way as well. Kicking from a moving bike is dangerous as you can easily lose balance. Once I tried to whack a car with a lump of hardwood I carried — the car moved away more suddenly than expected. I ended up on the gutter. Whack-sticks are good for dogs — but if you can afford to keep buying new pumps, then use that.
- 7 Some cyclists have been known to pick up and crash down their bike onto cars of disrespectful drivers. Certainly it shocks the driver — but

you can be lawfully prosecuted for such action. Isn't it funny, I have never heard of a driver prosecuted for 'spooking' a cyclist.

- 8 Clothes: Baggy clothes that cover me all up are hot but reduce crude/lewd glances, comments and whistling. Shorts and T-shirt with a collar are best in summer, but unfortunately activate morons in cars and on pavements. Swear, and better still, spit. I'm sure that exhaust induced phlegm shouldn't be swallowed where it could cause stomach cancer — so you've just got to spit it out! (A good excuse anyway.) Spitting and swearing simultaneously doesn't work and only makes me choke.
- 9 Finally — wear a nasty, evil, hideous grin. Artificial fangs are desirable but don't bite motorists, attackers or dogs with them, you may catch rabies. More seriously though; the lack of women riding bikes (either commuting or touring) indicates the force and staying power of sexist attitudes. I remember at school when suddenly at about 14 all the girls stopped riding their bikes. Stand outside a highschool this afternoon. First comes the hordes of boys on their deadly-treadlies and walking sedately behind come the girls. It's all very sad and hard to believe.



by Barbara Lovell

No one really likes to think about accidents and the possibility of injury or death. Besides, it always happens to someone else, doesn't it? It is hard to realise as you give your child that first bike, or buy one yourself, that it is only second to the motor cycle in accident risk on the road.

A bicycle is a remarkable machine, being a very convenient and healthy way to travel and a lot of fun. But unfortunately at the present time, motor traffic and bikes share the same road and a cyclist needs to take a great deal of care in order to lessen the risk of accident.

Quite a few guides have been written on cycling safety, but before we consider such a guide it is well worth looking at some of the things that studies on bicycle accidents have found.

Bicycles and the Child Rider

The accident situation for children differs from that of the older rider using his or her bike for transport. For many children the bicycle is just a toy, they may not even ride them on the road. Most children love bicycles, for good reason, but even away from the road accidents can easily happen.

- Studies of accidents show that:
- Younger children tend to have more accidents than older ones do, but of a less serious kind.
- The ones most likely to have accidents are children who have been riding for less than two years.
- Falls are a much more common type of accident than collisions and the usual injuries are cuts, scrapes and bruises especially to the face and head. Fractures are common too.

These types of accidents usually happen in residential areas, during the day and in clear weather — just children out playing and fooling around. Most of them happen when the child loses control of the bike. Loss of control follows things like:

- stunting, eg doing 'wheelies';
- riding double;
- braking;
- mechanical failure of the bike.

Bicycles that are too large for the child to handle, worn rubber pedals and consequent problems with slipping feet, gear levers placed on the top bar and the borrowing of other children's bikes can all be dangerous.

'Wheelies' and riding double are activities that children's bikes have not been designed to cope with. Hi riser style bikes are unstable at low speeds anyway, without causing further trouble by doing things for which they were not intended.

SAFETY and CYCLING



Unfortunately banana seats and sissy bars make such dangerous tricks more easy to do.

Having worked in bicycle shops for several years, I have had plenty of opportunity to see what terrible mechanical shape many children's bikes are in. Very common faults are:

- bent front forks;
- broken cables and generally very unsatisfactory handbrake systems;
- loose headbearings, centre bracket bearings, and wheel cones;
- worn cotter pins;
- broken or improperly adjusted gears;
- bent rims and broken pedals.

Hi riser bars are often difficult to keep tight, in fact almost any nut and bolt that can come loose on a child's bicycle, will. Some of these problems are due to the design and construction of the bikes, but many are due to misuse and neglect. In this sort of shape they make very dangerous toys.

New, young cyclists need supervision in learning to ride and care for their bikes. Would you ride a bike with loose bars, no brakes and maladjusted gears? Then take care that your child is not in this situation!

Some points to consider:

- In buying a child's bike, choose one of a suitable size for easy handling. The child should be able to stand over the top bar with both feet flat on the floor and be able to easily reach the pedals when sitting on the seat. Back pedal brakes are usually recommended for the younger riders as they are easier to operate and are less likely to be damaged in minor crashes and the everyday beating a child's bike goes through. Avoid Hi risers.
- Teach the new rider how to start and stop and how to turn. Handsignals and road rules are essential too. Make sure they can do this before they venture out of the park or other safe place in which they have been practising. Better at least try and warn them about riding double and doing 'wheelies'.
- Have your child's bike regularly and completely checked by a reputable shop or a competent person. Encourage them to learn about the bike and how it works. Learn yourself, too.

For young children collisions with motor vehicles account for only a small percentage of the accidents that take place. But, of course, these collisions are much more likely to result in injury or death, and the risk increases with age. The group most at risk on a bicycle are children in the 10-14 year age group who make up about half of the serious and fatal accidents.

The Bicycle on the Road

Cyclists account for 3% of traffic fatalities in Australia. On a miles travelled basis only motorcycles have a higher accident risk. The majority of those killed are between the ages of 7 and 16 but with more adults taking up cycling this may change. We have to remember, too, that many collisions between cars and cycles are not reported when only minor damage or injury results.

A bicycle on the road is way out-classed in size and speed by the motor traffic and holds only a minor place in the motorist's awareness. Not always a respected place either, many of us know the shout *Get off the road yer . . .!* in its every possible form.

Studies made of bicycle accidents on the road have produced some useful information:

- Most accidents take place during weekdays in the later afternoon and early evening;
- Commonly motorists claim they did not see the cyclists.

Obviously, then **visibility** is a very important thing to consider if a cyclist is to avoid injury.

- Half of bike accidents occur at intersections;
- **In two out of three collisions between cars and bikes the cyclist violated a safety rule or law.**

The most common violations were:

- Failing to give right of way.
- Disregarding traffic signs, signals and markers.
- Making improper turns.
- Riding double.

A very strong case for following the road rules! Other often cited dangers facing cyclists are:

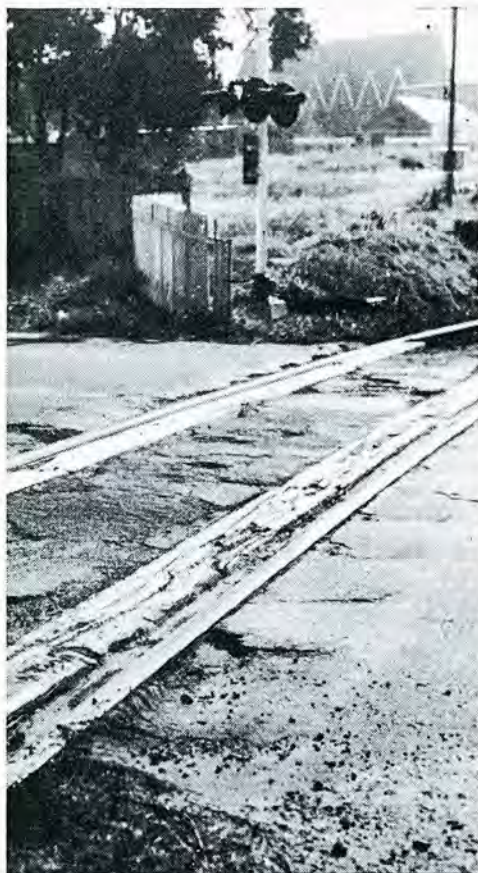
- The opening doors of parked cars.
- Gratings covering drains.
- Cracks and bumps.
- Loose dirt and gravel.
- Wet streets.
- Gutters and fixed objects.

One last, very important fact to note is that 75% of bicycle accident deaths result from head injuries. 80% of cyclists struck by motor vehicles had head injuries according to a study done in Adelaide.

To just write a list of rules for staying safe isn't enough. Safe riding is an attitude as well as the following of rules. First you have to realise that bicycle riding is a dangerous occupation, **for you**, and that it is easy enough to be hurt or killed if you venture out on the high road. Once you have realised that, and it may take a few shocks before you do, and decided that you don't want to die, there's more point in looking at some guides for riding.

Be Seen

Wear light, bright clothes, especially at



night. Have a front and rear light visible for 300', invest in some pedal and wheel reflectors, and what about a big Jumbo for the back? Bright safety jackets are available from motor cycle shops.

Be Heard

Practise a loud yell, or buy yourself a good loud horn.

Be Predictable

Follow the road rules and give clear hand-signals. Do stop at lights. The more we follow the rules, the more easy it will be for motorists to successfully guess what we'll do next. It might lead to a greater respect for cyclists if we act consistently. Until cycleways are common, we have to survive somehow.

Choose You Roads

Avoid heavy traffic. Places like Victoria Road or Broadway are pretty deadly. Ride out far enough from the gutter to avoid drains and the opening doors of parked cars where its possible to do so.

Don't Ride When Sad, Sick or Miserable

If you are preoccupied by anything, or just feel spooked, make no excuses to yourself or anyone and stay off the road.

Keep Bike in Top Shape

Poor brakes and wobbling wheels are dangerous things.

Learn As Much As You Can About Your Bike

Anything that adds to your control and confidence is a great asset. Watch out for poor braking in rainy weather, not only yours but the motorists around you.

If All Else Fails

If the traffic is too heavy, the rain too bleak, or anything — become a pedestrian for a while.

Riding With Friends in the City

Work out which way to go first, make sure you all know before you start. Ride single file in general. **Make decisions independently.** Don't just follow someone through a stopsign without looking. Signal to each other.

Helmets

For regular city riders helmets must be a sensible idea considering the accident statistics. Bell makes a special cyclists helmet, other choices are professional ice hockey helmets, climbing, canoeing or racing types. There is also a less substantial version of the ice hockey helmet. Anything is probably better than nothing, but hard evidence about the relative effectiveness of these helmets is lacking.

Wherever You Are

Develop your 'feel' for the road. Listen, is that a car, a bike or a truck behind you? Beware of the windrush from big vehicles coming either way. Be awake, take care, stay alive.

Days and nights in the The Border Ranges from

The density of vegetation, variety of life-forms and luxuriant growth which strike the visitor to a rainforest often produce an emotional reaction on the part of the traveller. Yet despite this wonderment at the magnificence of nature epitomised by the rainforest, in Australia it has often been regarded solely as a source of valuable timbers, such as the cedar which attracted woodsmen throughout the nineteenth century, or merely as an unnecessary covering of a supposedly fertile soil to be removed as quickly as possible so that agriculture or pastoralism could make better use of the "scrub" or "brush" land. Fortunately, some of the early timbergetters, such as Romeo Lahey in the McPherson Ranges, saw the value of preserving some patches of rainforest as National Parks where people could enjoy the scenery and appreciate the complex interdependence of plants and animals in the forest. However, despite the variety of rainforest in Australia, their full value and the wide variety of uses to which rainforest may be put have seldom been considered.

The valleys of the Richmond and Tweed rivers of northern NSW and the hinterland of the Logan, Albert, Coomera and Nerang Rivers in Queensland once carried dense sub-tropical variants of tropical forest, with above about 600 metres the temperate rainforest dominated by *Nothofagus moorei* (Antarctic Beech). Most of these forests have been cleared, and in the lowlands only a few reserves, such as the Stott Island Nature Reserve and Mebbin State Forest remain.

The original 1,800,000 acres of

rainforest in NSW, most of which was in the lowlands adjoining the Border Ranges, has been reduced to 200,000 acres. Most of the remaining 200,000 acres have been logged, leaving a mixed growth of scrub and weeds. The only substantial unspoilt area remaining is the Border Ranges. This includes the largest tracts of prime virgin sub-tropical rainforest left in Australia and possibly in the world.

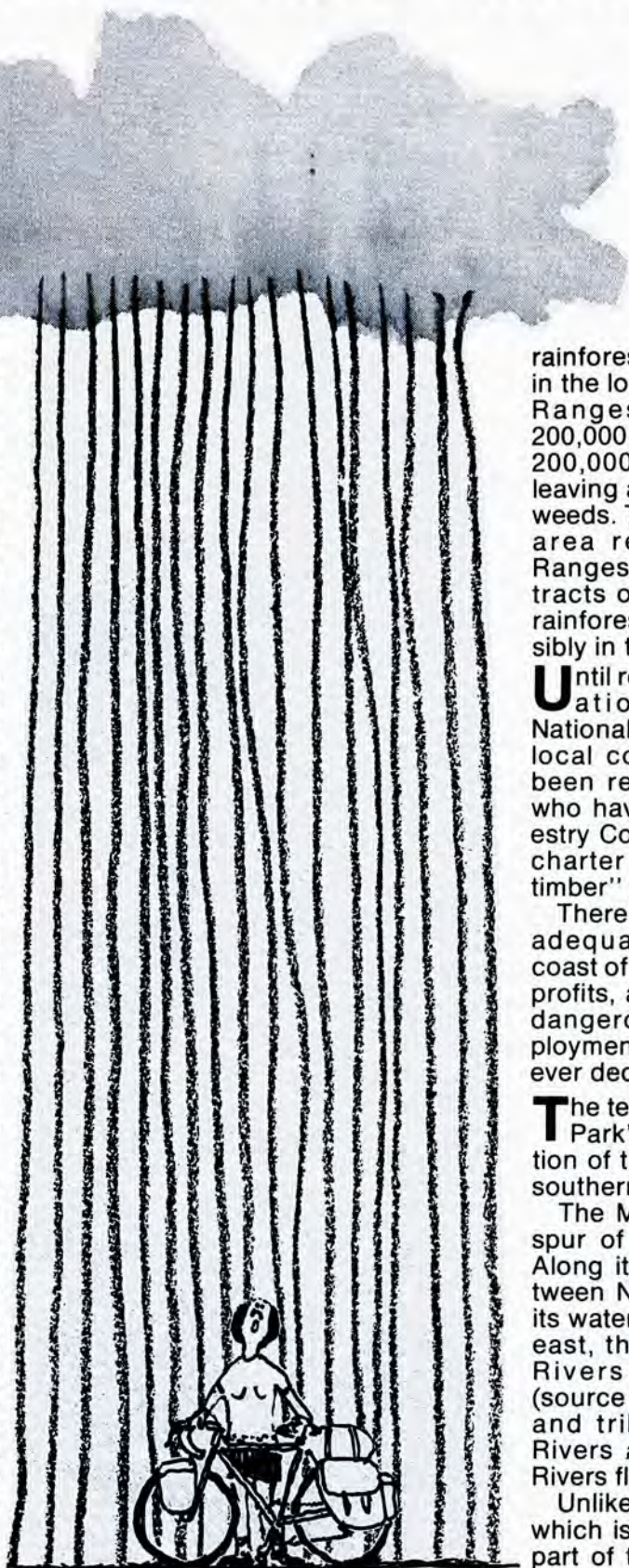
Until recently, pressure for the creation of a Border Ranges National Park has come mainly from local conservation bodies. It has been resisted by timber interests who have been backed by the Forestry Commission in fulfilment of its charter to "encourage the use of timber" (Forestry Act).

There is no national park which adequately serves the far north coast of NSW. Timber interests make profits, and workers gain somewhat dangerous and impermanent employment from the exploitation of the ever decreasing timber resources.

The term "Border Ranges National Park" applies to the central portion of the McPherson Range and a southern spur — the Tweed Range.

The McPherson Range itself is a spur of the Great Dividing Range. Along its crest runs the border between NSW and Queensland. From its watershed the Tweed River flows east, the Richmond and Clarence Rivers south, the Condamine (source of the Darling) to the west, and tributaries of the Brisbane Rivers and the Logan and Albert Rivers flow north.

Unlike the Great Dividing Range, which is a broad dissected plateau, part of the McPherson Range con-



rainforest a Bicycle

sists of a chain of volcanic peaks, rising to heights of more than 1,200 metres.

The Tweed Range was formed in the tertiary period by a great flow of lava from the central vent of Mount Warning. It rises abruptly from the Tweed Valley, forming a continuous rock-rimmed escarpment, about 1,000 metres above the lowlands.

Moisture-laden winds from the Pacific Ocean are forced up over the Tweed Range escarpment, where some 3,750 mm. (about 150 inches) of rainfall is believed to be precipitated annually. Rainfall is considerably less to the west. The combination of high rainfall and rich volcanic soil, on a range 700 kms from the tropics, has resulted in a luxuriant growth of sub-tropical rainforest on the wet uplands and in the gullies. On Lever's plateau are found some of the largest remaining speci-

mens of a wide variety of rainforest trees. The areas which the ACF, the Colong Committee, the National Parks Association of NSW, the Border Ranges Preservation Society, the Byron Bay Flora and Fauna Association and many other conservation groups seek to preserve is south of the border.

It consists mainly of Wiangarie State Forest, on the Tweed Range, and Roseberry State Forest to the west (which includes Lever's Plateau), and some adjacent lands. Linked with existing and proposed Queensland reserves, the proposed park would complete a chain of reserves, extending from the Great Dividing Range to the coast. The creation of the parks would mean the preservation of some of the most beautiful mountain scenery in the Commonwealth.

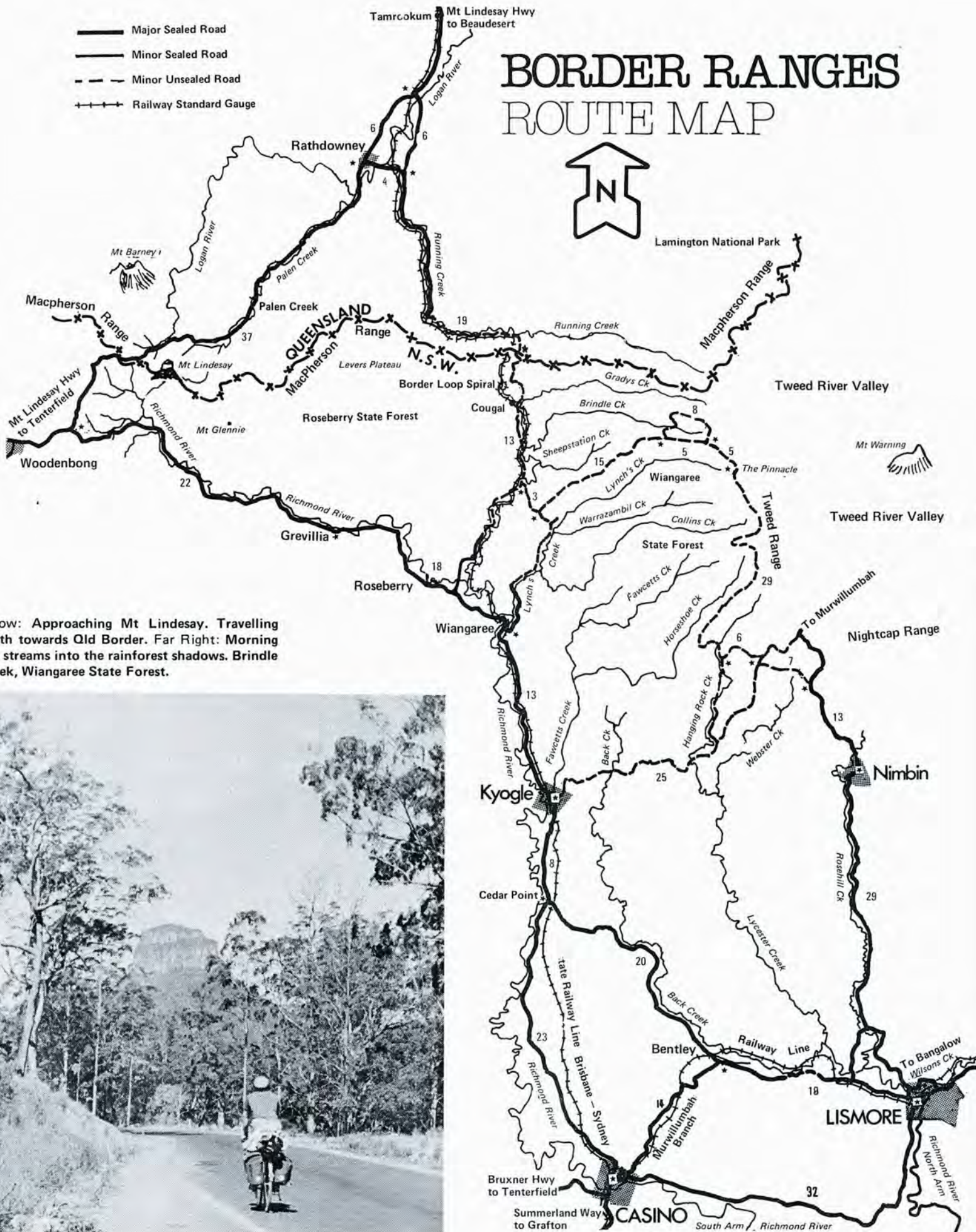
Alex Colley *Habitat Australia* Vol 4 No 3

Horseshoe Creek basin from forest road



- Major Sealed Road
- Minor Sealed Road
- - - Minor Unsealed Road
- + + + Railway Standard Gauge

BORDER RANGES ROUTE MAP



Below: Approaching Mt Lindesay. Travelling north towards Qld Border. Far Right: Morning sun streams into the rainforest shadows. Brindle Creek, Wiangaree State Forest.



22 Freewheeling

BORDER RANGES

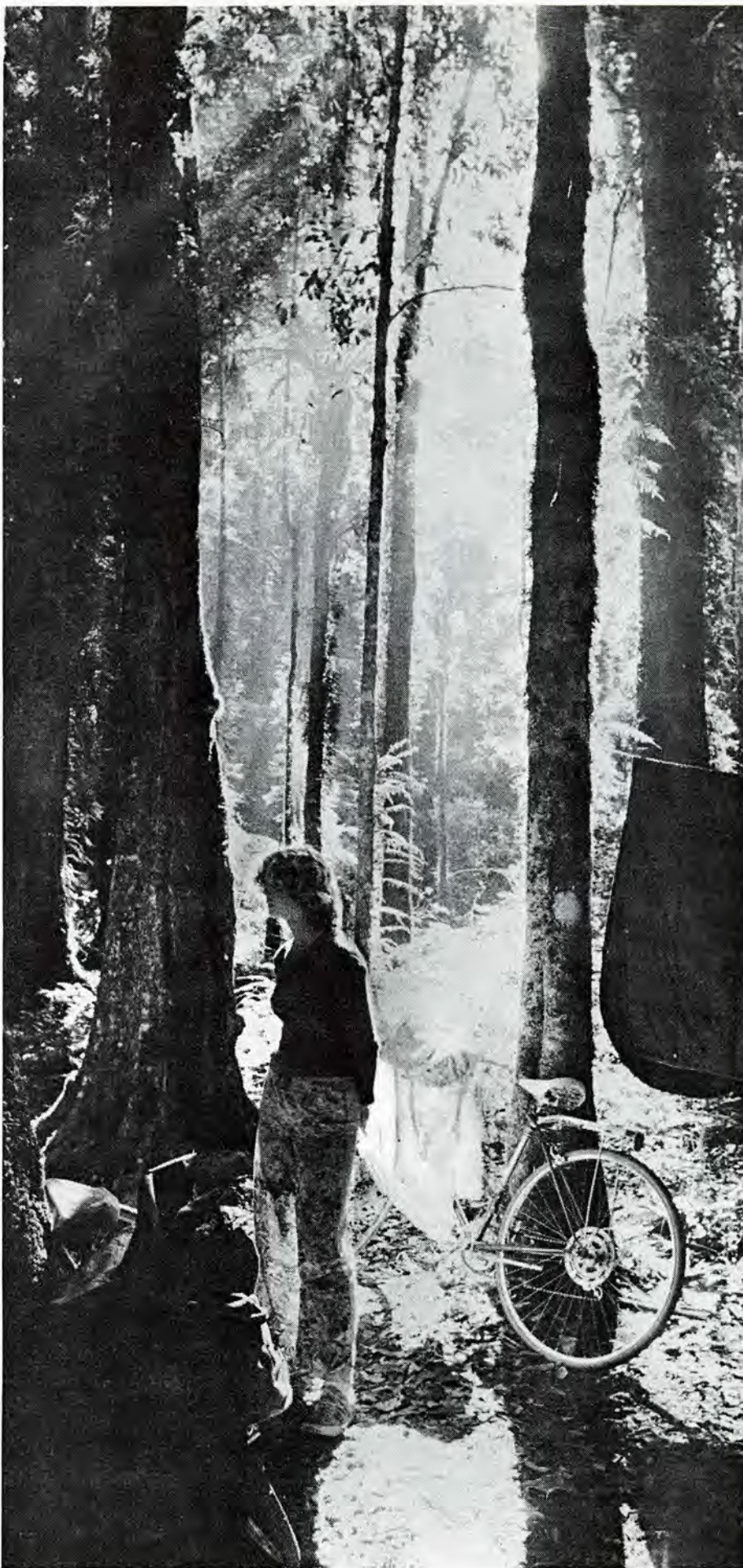
By now the sun had climbed to its zenith. With sweat forming and dripping down on to the gravel road we climbed up on into Wiangaree. What on earth are we doing pushing bikes up a steep slope in the midday sun? Mad dogs and Englishmen . . .

We had left our climb till late and now we sweated for our mistake. As the road levelled out we could see ahead of us the dark green tops of the ridges all clothed in cool rainforest . . . In the blue sky over clouds appear as the rainforest begins to work its magic — the afternoon rainstorm.

Elsewhere it is dry and sunny but here near to the top of our climb it begins to rain, a cool shower to wash away our sweat, our heat and our fears — we are in the forest now and all is still save the wind in the canopy above. On a bicycle you can generally hear log trucks long before they can see you.

In late 1977 a group of BINSW cyclists ventured into the Border Ranges area to find out what was there and what was really at stake. The tour they took is described on the following pages so all cyclists may discover for themselves this wonderful area. In all of the proposals and counter proposals for the ultimate land use of the Border Ranges cyclists have remained unthought of. The BINSW riders believe that the area offers all cyclists a rare opportunity of experiencing the rainforest and its ways. Roads such as the Wiangaree Forest Road are almost unique in the state of NSW. On this tour a whole day was spent on roads inside the rainforest.

Possibly the most attractive thing for cyclists was the ease of access to the area itself. Some 1 250 000 people live less than 100 km from its centre. Good cycling roads with light traffic and a daily rail service could bring further potential cyclists to the area. As bicycle touring continues to grow in popularity more and more bicyclists will come to discover this area. Cyclists participate in the local economy by buying food and produce along the way and using existing accommodation facilities. It would be sad to think that those who saw it in '77 were the lucky last. The BINSW touring group concerned feels that a Border Ranges National Park would best serve the people of Australia. But don't take their word for it, get onto your bike and discover it for yourself.





(Photo by H. Gold)

Touring Information

A circular tour of the Border Ranges area offers a good way to get a feel for the countryside and experience its incredible diversities. Starting points on the NSW side of the McPherson's are at Casino, Kyogle or Lismore railway stations, all of which are served by overnight air conditioned trains from Sydney. Rathdowney offers the best starting point from the Queensland side. It lies some 80 kilometers south of Brisbane's southern suburban rail terminus of Beenleigh. From Beenleigh the best way south is via Tambourine Village, Beaudesert, and the Mt Lindesay Highway. Campsites along the way are wherever you can find a sympathetic land owner. There are a few good spots for stops along the Albert River between Beenleigh and Tambourine Village.

The circuit takes in the NSW towns of Casino, Kyogle, Wiangaree, Grevillia, Nimbin and Lismore and Rathdowney in Queensland. This circuit can be comfortably travelled in about seven days. Rest days also can be added as there is much to see.

The road north from Casino to the Queensland Border is a good DMR maintained road with some transports to be expected as it is the next inland alternative road to the Pacific Highway. The road surface deteriorates once in to Queensland and in parts the sealed portion is very narrow. Traffic can occur

near or between larger centres as people in the area are very mobile. From Rathdowney south down Running Creek Valley runs a beautiful sealed shire road which, in parts, parallels the main interstate railway line. The bitumen eventually runs out before a bridge crossing of Running Creek. On the northern side of this bridge there is a little campsite off the side of the road upstream. The road from here through to the Cougal campsite in NSW is gravel, very rocky with some very steep grades. Most of Running Creek Valley used to be under rainforest and it is usually very green and lush. Originally this road was built to serve the small farms up the valley and the road through into NSW was only recently constructed as a voluntary project by Lions clubs in Kyogle and Beaudesert. This link road is called the *Lions Road* and is signposted at either end. The actual climb over the range is very steep from either direction. The Queensland side is more exposed and steeper. There is a cool off spot before the climb when travelling north-south just after the Lions Road sign where the road passes close to the creek before it begins its big ascent. The road has been widely promoted as a tourist road so weekend traffic can make conditions difficult. There are many beautiful spots by the creek all along this gravel road, these can be filled with car campers during summer holiday periods.

There is a rumour that the border gate is operated by Queensland police

to restrict the flow of undesirable southerners north. This is untrue. The people who are there are NSW Department of Agriculture Officers who check vehicles for any Queensland ticks and bugs going south. They are always very friendly and if asked will generally allow travelling cyclists to fill water bottles from their tanks.

Close to the almost abandoned settlement of Cougal in NSW, the Lions Club of Kyogle has provided one of the nicest campsite/picnic areas you'll find. This also is popular with summer campers and travellers but during weekdays is mostly deserted. There are fireflies down by the swimming hole. This area is maintained by the Lions Club members on a voluntary basis. From this campsite through Wiangaree State Forest to Nimbin is gravel road. There are some sealed strips north of Nimbin. Long steep grades are to be experienced on forest roads leading into and out of Wiangaree State Forest. If travelling the circuit in a clockwise direction the steepest climbs are: up onto the ridge after the Wiangaree State Forest Scenic Drive sign, up into Wiangaree itself, out of Brindle Creek and up over the Bar Mountain, all good solid climbs. (Get good shoes as the gravel makes it very difficult to ride.) From the other direction there are long climbs: up into Wiangaree from Barkers Vale School and into rainforest, over the Bar Mountain, and out of Brindle Creek. The road from



Far Left: Border Ranges ariel photograph looking west, Levers Plateau in foreground, Mt Lindesay centre mid distance, the highway loops up behind Mt Lindesay from the left and crosses the border at the lowest point below the mountain. Left: Rainforest fig tree exposed by forest road. Centre: Log trucks can be heard at a distance,, it is worthwhile watching them roll by at a safe distance. Right: One of the splash crossings on the Cougal Creek Lions Road.



Nimbin through to Casino is sealed and the grades become easier as the river valleys widen.

Maps

Most roadmaps of the area will not show the forest roads or the Lions Road. The leaflet published by the Forestry Commission office at Kyogle has a very good map which shows both these roads. For general topographical maps of the area the Natmap 1:250 000 series maps Warwick and Tweed Heads cover the area and give good detail of contours etc. The Tweed Heads map is an old non-metric series published in 1967. Neither maps show road surface details in the area so a good up-to-date petrol company map should be obtained. The map accompanying this article should be adequate to complete the tour described without need for any more extra maps than the ones described above.

Bike Shops and Provisions

Good bike shops along the way are to be found in the NSW towns of Casino, Lismore and Kyogle. These towns plus Nimbin, are the best provisioning stops in NSW. Rathdowney in Queensland has a small store, a butcher shop and pub. About 11 km further north there is a well stocked general store at Tamroukum opposite the interstate railway line. For cyclists approaching from the north, the town of Beaudesert is an excellent place to buy food and supplies.

Special Places to Visit

The Tweed Pinnacle can be reached quite easily by means of a signposted walking track off the forest road. There is a small (no water) overnight bivouac area soon after the track emerges from the rainforest into Blackbutt Forest (Eucalypt). From here it is a 15 minute + descent down onto the pinnacle which offers 360 degree views of the Tweed Valley, Mount Warning and the Tweed Range escarpment.

Brindle Creek Picnic Area is an old army bivouac area now developed by the Forestry Commission as a picnic site. This beautiful spot makes an ideal overnight stopover point in dry rainforest. There are no toilet facilities provided but the Forestry Commission officers will probably let travelling cyclists stay overnight if assurances are given that all human wastes will be properly disposed of. This means garbage in bins, excrement buried and no soap in creek. Care should be taken to preserve the leaf mould ground covering in this rainforest. Wood is provided by the NSW Forestry Commission, as wood in rainforest is scarce and generally unsuitable for use in cooking fires. Fireplaces are also provided.

The Border Loop. In order to reduce the length of railway tunnel through the Macpherson Range a spiral loop was constructed about 5 km south of the border crossing. From a lookout above the loop, trains can be seen (if you are

there at the right time) coming up the valley, passing through a ridge via two tunnels to cross over the original track thereby gaining 65 feet in height. If planning a trip, train times for the day only can be obtained by 'phoning Kyogle Railway, 321 041. The Limited passes through early morning and late afternoon and most day trains are unscheduled goods trains.

Campsites

Lismore and Casino both have caravan type camping grounds. The showground at Kyogle offers quiet camping but the showers are only cold. Apart from the campsites mentioned at Brindle Creek, Cougal and Running Creek, natural sites are to be found wherever you can find a sympathetic land owner. Often it is best to ask around whenever local people can be found. Persistence furthers.

Climate

Rain in varying amounts is to be expected any time of year. Cyclonic weather can occur from November through to March, making all forest roads very slippery but still traffickable (all roads described are all weather roads). In winter months the tops can become very cold at night and summer heat can make riding in the lower valleys and river plains a hot and humid affair. Best seasons for touring in this area are spring and autumn.

TOURING IN ENGLAND

Alone,
on the long road.
An oasis of a town,
a cool tree,
grass to sit on,
shelter from the wind and sun,
and a drink, a long cool drink.

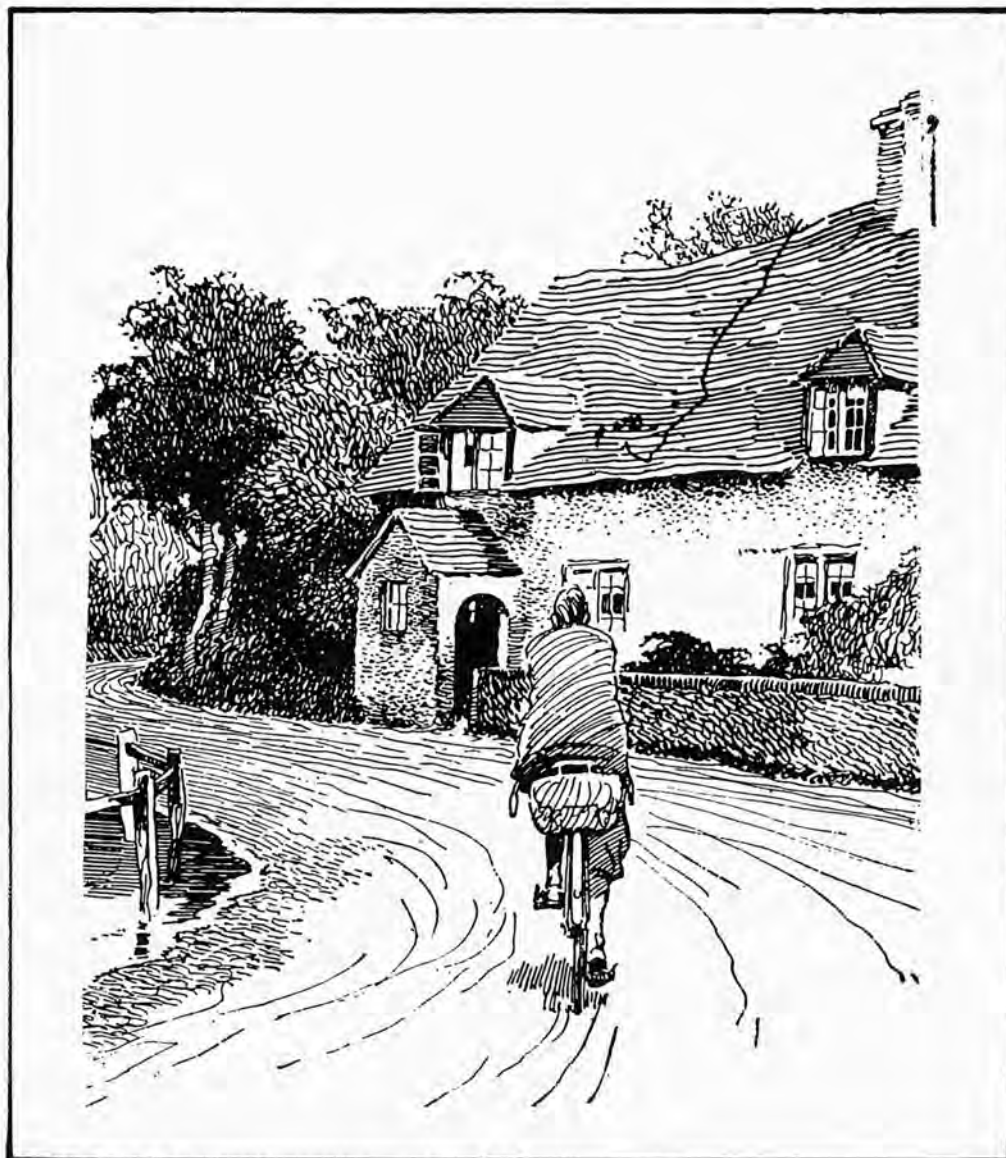
Wheeling a bicycle.
Where have you been?
Where are you going?
How far do you go a day?
You must be fit!

Companions on the road,
a touring bike dusty and worn,
leaning against a post by a shop.
Waiting beside it for its owner to return,
or the search for someone
with grease on their clothes or legs,

and a sunburnt face.
Another traveller,
a strong bond, no need for introduction.

Off out of town,
the solid, inexorable, movement away.
Distance, farther and closer.
The sight of mileposts,
some expected, some so much further away
slow grinding into a wind.

Gipsy carts,
pubs,
Gargoyles on gates,
closed villages with strange names,
corner shops.
Rolling into Cambridge, or to London,
the dust of miles, the smell of the land,
the feel of its rise and fall.
The sun and weather,
sea to the left,
all of it carried along with you.



London is somewhere,
not a fantastic city or a dream,
arrived at out of a silver, highflying box.
Winchester,
anchored in green land,
ancient hills, not a picture in a pamphlet,
or an idly taken photograph at another scenic
and toilet facility stop on a bus tour.

It rains, its hot, it smells of cows.
There are dead animals on the road, and I
might well be one of them, me, with no
metal and glass cage.
An adventure.
Arriving at night,
rolling the last few feet to a front gate,
sorting out the rules and a bed for the night.
Dinner and conversations, walks into town,
sometimes singing. Are there showers?

Noise, sleep.



IN EIRE

Riding over windy hills
in the grey morning

Blown like a bird
round the winding road
Down to the sleeping valleys.

Cold, smooth,
leaning past the rocks
and dull lakeside
I travel towards the sea.

Barbara Lovell



Touring in Western Europe

by Jim Donovan

In May last year I rode out of the Kentish town of Orpington (about 15 miles from London) and thus commenced a 2-month tour of ten European countries. The following remarks may help those who are contemplating such a tour.

Accommodation

Some tourists I met carried full camping gear and thus were fully independent of hostels etc. But, to judge from the numbers of cycles parked at hostels, the majority of tourists preferred to use hostels. These were always tolerable, the only real hassle being that some hostels (eg Windsor, Oxford etc) are hard to get into without booking by mail. And it is very possible to discover that a large school party has greatly reduced the available accommodation in a remote and apparently poorly-patronised hostel. Both

these problems can be avoided by regular daily use of the telephone at 9 am. Except in France, hostel wardens usually speak English. If hostels are inconvenient, look for a Zimmer (Germany, Austria); a Pension (France) or a B+B (England). These cost about twice as much as hostels but are more comfortable and are at least as interesting.

Maps

In England, most oil companies have the British Isles covered by a series of about 9 maps at a scale of 1:200 000. They are cheap and fairly accurate. Most of Europe is covered by the Michelin series of maps, available from tabacs in French countries, Bucherein in Germany and large bookshops in Dutch countries. These maps are very accurate and are ideal for road cycling.

Roads

In all of Europe roads are sealed, including the minor roads. Thus, there is no need to share major roads with fast traffic. There are many cycle paths in Holland but do not expect to set speed records on them. Beware of cobblestones in Rome, Paris and Brussels and tram-tracks in many cities.

Hills

The hills of Devon are so steep that the touring cyclists should half their daily mileage budget. Cornwall and Derbyshire are not much better. On the other hand, Lincolnshire and the whole of the Netherlands are dead flat. Did you really want to cross the Alps?

Weather

The wettest country in summer is probably Holland. But in many places, especially in Scotland and Ireland, the air is perpetually moist and it is wise to wrap up well at night.

Relations with Europeans

Most of them are delighted to help cycling Australians. They will sell you anything you require, give you directions (but ask somebody else every kilometre or so, to be sure you are going the right way), advise you on local beauty spots or even let you wait in their hayshed until the rain stops. But they can become rather less patient when you lean your bike on their shop window, ride it on an expressway or take it onto holy ground, eg St Stephen's Green in Dublin or the surrounds of the Arc de Triomphe.

What to Take

The less you carry, the better — for several reasons. I survived with light clothing, a hostel sleeping sheet and a few bicycle tools. This was carried with the heavy and valuable items in an easily-removed handlebar bag and the light things tied to the back carrier. You should be prepared for heavy rain. For reasons of safety on wet roads, your front tyre should have a good tread on it, and of course, some traveller's cheques — the hostelling cyclist might budget \$10 + train fares in England and \$15 + train fares in Europe, where things are dearer. Camping cyclists could live on a lot less.

How to Get a Bike to Europe

Qantas will carry it there and back for you, unless you prefer to buy one overseas. The daily ferries across the Channel and the Irish Sea will help you as required, and there are trains.

Finally

Your YHA membership should be paid before you go. Also, it would be handy to be a member of the British Cycle Tourists Club. Write to the CTC at Cotterell House, 69 Meadrow, Godalming Surrey.

bicycle touring

Below: The high point of this tour is reached at this point roughly halfway between the New England National Park turnoff and Ebor.



ARMIDALE TO URUNGA

by Daniel McNamara

Although this route has probably been cycled by many hundreds of bicyclists (indeed the little old man in the Broadway Bicycle Shop warned us of the hills *going down the Dorrigo*), I offer this account as a record which may prove of some use to intending tourists.

A current interest in forest types, and particularly rainforest types, determined the choice of this route. Both Armidale and Urunga are on Northern Rail routes. Armidale has the overwhelming advantage of being some one thousand metres higher than Urunga, which, over 180 kilometres, averages out to a nice downhill run. (Well, the theory is right). The route passes by the New England National Park with alpine, wet and dry sclerophyll, temperate and semitropical rainforests. Within walking distance of each other are Guy Fawkes River National Park, and the Dorrigo National Park. At the same time, the ride varies from the cool green upland regions of New

England, through the heady climatic and physiographic transition zone of the Dorrigo escarpment, out to the bleached-hair-and-surfboard nirvana of the coast.

Being theoretically downhill, the riding ranges from longish dry and dusty grades between Armidale and Ebor, to the brake-testing exhilaration of the Downhill-All-The-Way-Dorrigo roller-coaster. My friend had done little touring previously, and though we didn't break speed records, she didn't die from the effort as she thought she might.

Trains from Sydney are relatively cheap — around \$10 second class to Armidale (\$5 for students) plus \$5 or so for the bike, and about the same from Urunga to Sydney. For maps we took an NRMA Mid North Coast road map, (good for an overview of the whole region, and you just can't beat the price), the 1:250 000 Ordinance Survey Series R502

(Dorrigo Section) which has fair detail of road surfaces, and encompasses the stretch Armidale-Bellingen on the one map, and finally the 1:100 000 Ordinance Survey series R651 map which has detailed contours of the Dorrigo escarpment and shows reasonable ground cover detail (available Lands Department, Bridge Street, Sydney).

The night mail train to Armidale arrives at 8 am. Milkbars are scarce, but the centre of the town is a nice place to enjoy breakfast, with its pedestrian mall and innumerable *Keep Our City Clean* signs. Anything else you would like to know about the town is on the back of the NRMA touring map (as is information about most of the other towns we passed through), so I won't bore you with details.

Due to a train derailment, our bikes didn't arrive till midday, so we made Wollomombi 42 km east, our target for the night, with the mistaken hope that perhaps there might be a pub there. (A

hope that was eventually fulfilled in Dorriggo.) The human hand shows strongly in the country east of Armidale, and recently ringbarked trees stand dead in fields of paspalum, interspersed with a few scraggly eucalypts. We swam in the Gyra River, 14 km out of town, a pleasant enough swimming hole just north of the bridge, and arrived parched and tired at Wollomombi, where we camped near the river.

The second day took us into the New England National Park, and the country gets more hilly. The sealed road becomes gravel at the turn off, which in many ways is a pleasant, more relaxed riding than the main road, though highway traffic was hardly a problem. We passed a structure sitting in a paddock, looking like The Tomb of the Drive In Hamburger which turned out to be a vital link in the Air Traffic Control Network (or so the technicians working there informed us).

Inside the Park is superb. We spent two nights sleeping in Tom's Cabin, at \$2 a night for hot showers and soft beds, which isn't bad value. The cabin has eight beds, but for some strange reason, the first person to book for the night gets the whole place. We talked the first-come into subletting for the night and we stayed on next day to do some walking on the forest paths. Only once did we emerge from our peaceful trail of waterfalls and Antarctic beech trees, and that was at the block busting view from Point Lookout, swarming with chip-munching children and their parents staggering the awful two hundred metres from car to vantage point for their weekly scenic

fix (it was Sunday). We didn't meet a soul on the 5.6 km Lyrebird trail to Wards Lookout.

Next day took us to Fernbrook via Ebor, a very pleasant ride. The falls near Ebor are worth a lunch stop, only 500 m from the road, which is dirt for about six kilometres near the town. There weren't many potholes when we passed through, and the worst problem was dust from the occasional cattle truck. However, with a change of municipality, the surface reverts to bitumen and makes the long hills and dales a delight for tenth gear. We camped the night somewhere near Fernbrook in a burnt-out farmstead, framed by the classic fire ruins of brick chimney place and rusty water tanks.

The rest of the ride to Dorriggo is pure joy. The road passes along the Dorriggo Plateau from which it is possible at times to see rugged mountains falling away on both sides, with wilderness edging the timid green borders of isolated dairy farms.

Dorriggo National Park is very special. It marks the transition from high to low, plateau to valley, cool to warm, and the semi-tropical rainforest had an almost Hansel-and-Gretel feeling at dusk, when we emerged from it to camp near the park entrance. Officially there is no camping in the park now, but it appears that this will change in the near future, with a campsite somewhere near the Never-Never picnic area. That night the gentle falling rain dripped through our tiny tent, bringing home the quintessence of this forest type into our sleeping bags.

For the ride of all rides, down the Dorriggo should not be missed. The road

is narrow and steep, but it seems the ever-descending series of looping banks and turns fit somehow into the scale of a bicycle, making it pure exhilaration for eleven kilometres. It is so easy to stop and see where you have come from and where you are going to, and sense your place as somewhere between, unlike the leaden-faced tourist with boiling radiators on their minds. You feel the air get warmer, the sun emerges, and suddenly you are irrevocably down, into the slow moving breathlessness of the Bellingen Valley.

Bellingen is a cosy town touched by the hand of hippy commercialism, but still retaining its rural agricultural character. We lunched and took the road along the northern bank of the river, hilly in parts, mostly sealed, and almost without traffic. We camped just off a logging trail near the road before Charlmont, in the Pine Creek State Forest, where the mosquitoes were the most voracious we encountered on the journey.

Next day we had to face the dreary, smelly and dangerous 4 km down the Pacific Highway to Urunga, definitely the worst of the whole trip. We made it in one piece, booked our seats on the following day's train, and headed off to Hungry Head, 3 km south of the town, for the final night's camping. The water was warm, the afternoon surf a choppy prussian blue, and the feeling was one of return at last to the ocean. We braved the No Camping signs — it was only for one night — and woke to the morning's sunshafts in time to swim, breakfast and return to Urunga for that final ten-hour air-conditioned movie back to Sydney.



Recycle Australia!

BICYCLISTS ACCOMMODATION LIST

This list is circulated free to all who wish to be on it. It offers accommodation to travelling cyclists anywhere in Australia. The way this list works is simple: If you wish to recycle a part of Australia that you own and/or care for, like an old shed, a visitor's room in your house, a spot down by the creek or just outside in the backyard, and you would be happy for travelling cyclists to use it for overnight camping then write to the address below and ask to be put on the list. You will receive a current copy of the list with your name and address or directions to your place added to the bottom. Periodically the lists are updated and reprinted and you will receive these copies as well.

It may seem like a bit of a chain letter thing, but the list works the way it does because some involvement is necessary. People already on the list are travelling cyclists offering accommodation or a place to camp at their city homes or somewhere on rural properties. Some are also people who don't travel by bicycle but are happy to let cyclists camp or seek shelter.

The basic requirement for any self-sufficient cyclist or group should be a water supply, somewhere to cook a meal, a place to sleep or put up a tent. The *Bicyclist* seeks to provide for these essential needs in a voluntary way.

The distribution of the list is only to those on the list as some commitment to making the list idea work is necessary.

An advice sheet which accompanies the list explains the philosophy behind bicycle travel and how to make the most out of the list idea.

RECYCLE AUSTRALIA !



RECYCLE AUSTRALIA !

Bicyclist

PO Box 57
Broadway NSW 2007

This list is assembled and printed as a public service by Freewheeling Australia Publications, also of the above address.

First Aid Kits for travelling cyclists

Note: This article is not to be considered as a complete treatment of the subject of First Aid.

Few travelling cyclists have more than a rudimentary knowledge of first aid. This is generally sufficient for them to cope with the minor accidents — cuts, abrasions, blisters, minor burns and infections etc — to which they are prone. However, serious and complicated injuries do happen, though fortunately not often. It is then essential that proper treatment be applied immediately. The usual vague knowledge is then totally inadequate — indeed the party in endeavouring to help may easily make the injury even worse.

The best advice, therefore, that can be given to cyclists is to do a course with the St John's Ambulance Association or Red Cross Society, become proficient at first aid to the injured, and thus be prepared to render correct treatment and assistance if and when the need arises. Such a course will give a thorough and valuable knowledge of the correct method of treatment of injuries, although it will be necessary in some cases to adapt these methods to conditions likely to be encountered in an accident occurring in backroads, remote from medical centres and with limited treatment facilities at hand, and where the person may have to be immobilised. Every group must be equipped with a comprehensive first aid kit, suited to the size of the party and nature of the trip. While the kit must be comprehensive it must also be simple; complicated kits are unnecessary and may be misleading to the persons using them. Further, it is essential that each member be thoroughly familiar with the contents of the kit and the purpose and use of each item. The kit must be packed so that it cannot be damaged in any way, and is always convenient for use. Plastic lunch boxes make suitable containers.

To deal with the frequent very minor injuries — cuts, scratches, skin abrasions etc, it is preferable for each member to carry a small personal kit either in the pocket or an outside pocket of the pannier. The use of such personal kits ensures that sufficient quantities of certain items remain in the main party kit for use in the event of a more serious injury. It is also useful if the group becomes separated, and to save the inconvenience of taking out and opening the main kit for one or two bandaids. Such a kit (**personal**) would include:

- 10 cloth bandaids or in uncut lengths;
- 1 tube antiseptic cream;
- 12 analgesic tablets, in tinfoil;
- 1 tube sun blackout ointment;

These items could all be packed into a small pocket-size tin or bag.

The contents of the group kit must be carefully selected so that all injuries and ailments that might reasonably be expected to occur can be dealt with. This would include scratches, abrasions, lacerations, blisters, bites, burns, scalds, infections, sunburn, headaches, eye injuries, sprains, fractures, broken limbs, stomach complaints and snake bite.

The following kit, used in conjunction with personal kits, is recommended as being suitable for use by a party of from six to ten persons on a trip of up to about ten days, in country where medical centres can be contacted relatively quickly should the necessity arise, ie not more than a day away:

- 1 roll adhesive tape, 3 inches wide;
- 1 roll elastoplast adhesive bandage, 3 inches wide;
- 2 crepe bandages, 3 inches wide;
- 3 triangular bandages;
- 20 bandaids or in continuous strip;
- 12 non-adhesive dressings;
- 2 oz cotton wool;
- 1 tube Butesin Picrate, 1 oz;*
- 1 pack antiseptic cream, 4 oz;
- 20 Codis tablets, in tinfoil;
- 1 eye-shade;
- 1 pair scissors;
- 8 safety pins, assorted sizes;
- 1 pair fine forceps;
- 1 tourniquet;
- 1 thermometer;
- 1 rubber eye grit remover;
- 1 instruction card.

This 'basic kit' when packed into a convenient-sized container will be suitable for most of the trips likely to be undertaken. Trips for only a weekend or a few days require less of a kit and cyclists who are very keen on saving weight in their panniers could reduce the kit for use on such trips. As a general rule, however, it is advisable to use the basic kit on all trips up to about ten days and not reduce it for shorter trips — relatively little weight can be saved, a new and smaller container must be found, and there is always the likelihood that the quantities will not be replenished for the next long trip. The basic kit should only be altered when it is to be used by a larger party — then the quantity of bandaging, and dressing materials should be increased.

Though serious accidents happen only occasionally, don't wait for one to occur to make you realise the importance of having a thorough knowledge of first aid — it may be too late then.

Purpose and use of specific items

Adhesive Tape: plain, for strapping sprained ankles.

Elastoplast: not for strapping sprained ankles or broken ribs but for keeping a dressing or bandage in position over an area of the body which moves.

Crepe Bandage: for applying a dressing over an area of the body which moves and which is too extensive for the use of sticking plaster. It is not for strapping sprained ankles.

Sterile Dressing ('shell' or 'field' type): may be taken to reduce the quantity of crepe bandages. Sterile dressings must be carefully packed and protected to keep them intact and completely sterile.

Triangular Bandage: can be adapted to many uses but is generally used in splinting or supporting injured limbs.

Bandaids: cloth to allow the wound to breathe, not plastic.

Non-adhesive Dressing: large, for severe cuts.

Cotton Wool: must be carried in a waterproof container. It is useless if wet.

Butesin Picrate: a dual purpose ointment used particularly for small burns. It is antiseptic and pain-killing to a certain extent but must be used with care around the eyes and mouth.

Antiseptic Cream: for minor cuts, scratches, burns etc, applied to cleanse the wound and kill bacteria around the wound. Other substances are often recommended — Monacrin, Acriflavine, Zephiran, Cetavlin, Iodine etc, but Savlon is probably the most useful and portable antiseptic. Cetavlex cream can be used as an alternative; it is a mild antiseptic detergent cream having a similar action to Savlon.

Codis Tablets: available packed in tinfoil. It is a more potent pain reliever than Disprin, also packed in tinfoil, or Aspro in waxed paper. Veganin, Codral and Codiphen are equivalent in their action but not so conveniently packed.

Scissors: pointed type.

Fine Forceps: for removing splinters and ticks.

Tourniquet: a length of rubber tubing is most useful for snake bite.

Thermometer: protect from damage, know how to use it correctly.

Rubber Eye Grit Remover: to be used only for removing objects from the eye.

Instruction Card: a valuable addition to the first aid kit is an instruction card, or cards, fastened, for example, to the inside of the lid of the container. Should the kit have to be used by a person unfamiliar with its contents or with first aid generally, these cards will give useful information which will serve as a guide to the treatment of injuries and ailments. The cards should include the following information, set out so that it may be clearly and quickly read:

- 1 a complete list of the contents of the kit with information on the use of specific items, such as is given in this article;
- 2 brief but basic instructions to be observed when treating an injured person.

The all weather cyclist

Wet & Cold

and how not to let it get you down



Left: Wet weather is often an opportunity to experience nature in a magnificent mood. On the Alpine Way north of Khancoban NSW. Above: The all weather version of the flannel fool, complete with plastic bag over shoes.

Bicycle touring can be an all weather activity. It becomes that if you are prepared to accept all of the changes which that term implies.

Concepts of good and bad weather are tied up with good and bad feelings. To feel good inside ones own body or to feel good about the group of people you travel with is what matters most.

In wet weather, to stay dry involves some preparation and maintenance of equipment. A leaky parka can spoil a whole trip especially if all of your clothing becomes wet. In a cold climate staying warm is of even greater importance, as this article explains.

Some personal involvement and care is necessary in choosing and maintaining useful equipment.

Equipment for Bicycle Travel in Wet Conditions

- ☐ Waterproof pannier bags.
- ☐ Plastic bags (for equipment if bags leak or rain is heavy and prolonged).
- ☐ Waterproof parka.
- ☐ Waterproof rain pants.
- ☐ Waterproof over mittens (if gloves are worn).
- ☐ Waterproof over shoes or gaiters (for riding in rain).

Extra Equipment for Wet & Cold Conditions

- ☐ Wool shirt.
- ☐ String singlet and or tee shirt or wool undershirt.
- ☐ Woolen gloves and mittens.
- ☐ Woolen sox.
- ☐ Long woolen pants (only for severe conditions, see notes).

For general preparedness for the rain it is enough just to have a good parka handy and a cape to drape over the 'saddle bags'. For riding during a day of prolonged rain it becomes necessary to have waterproof pannier bags, a good parka with ventilation possibilities and some way of keeping feet dry. If it is warm then wet feet are not so much of a problem.

Cold weather adds further considerations. Wool is the only fabric that will keep you warm when wet. A wool shirt will keep that necessary layer of warm air next to your body.

Even though it was winter and the rain was falling evenly from the low clouds, inside my parka my body was working away at the hundred or so kilometres on to Cowra. By the time I arrived at Mandurama my wool shirt was very sodden and I think most of it was my own sweat. The warm food from the town's only cafe/take away tasted reassuring as I shivered away — it was essentially a refueling stop due to the cold, wet conditions. Once under way I could warm up again. When the rain stopped I could ventilate my parka and dry out...

Long woolen pants will protect your legs in severe cold. However, shorts will often be preferred because of sweating problems. Long pants will become wet very quickly even if protected from rain by rain pants. Rain pants give some warmth and protect legs from wind and driving rain. A combination of shorts and these will do in most wet and cold conditions. Rain pants should be of the same fabric as the parka.

For keeping riding gloves dry, waterproof over mittens are useful. These should be large enough to go over woolen gloves and mittens for those cold and wet mornings.

Wet feet can be very uncomfortable if it is also cold. In the US manufactured over shoes are available. They should also be available here. If you can't wait it is easy to make simple canvas proofed over shoes that protect the shoe. Some kinds of light canvas boots sold in disposals stores can be made waterproof by applying proofing compound. Woolen sox are once again good to wear even though some moisture is present.

Finally, when the day is over it is good to have some warm and dry clothes next to the skin. If the pannier bags are not waterproofed and if they are nylon chances are that, like unproofed canvas, they will leak, then clothes must be packed in strong, plastic bags. Large bags for the entire contents of the pannier bag tend to get worn and easily develop holes unless the plastic is thick. Better to pack smaller lots in more bags. Always carry extra plastic bags if wet weather is to be expected.

Sleeping bag covers are seldom waterproof so it is necessary to have a plastic over bag to ensure a warm, dry night's sleep.

Exposure

Exposure is caused by a severe loss of body heat, leading to mental deterioration, loss of muscular co-ordination, and eventually unconsciousness and death. The danger of exposure in Australia's wet, cold climates cannot be overstressed.

Causes

Cold: This is the basis cause, if a person is wearing insufficient or wet clothing, or if high winds are blowing.

Fatigue: It is the additional factor of physical exhaustion that kills quickly. There have been many deaths from exposure when a group thinking they must keep moving at all costs, have 'pushed on', often with little food, instead of seeking shelter and retaining a sufficient energy reserve.

Mental stress: When conditions are difficult, energy expenditure is usually far less profitable, and once the signs and symptoms of exposure have appeared, mental activity should be diverted immediately to camping for the night.

Signs and symptoms

Mental deterioration: Lethargy, little regard for the situation, possibly outbursts of violent language and energy.

Muscular incoordination: Movements sluggish, stumbling; slurring of speech.

Treatment

In any treatment, blood flow must not be increased to the skin (such as by drinking alcohol) unless in a warm environment.

On the road: Get the person into a sleeping bag. Protect them from the wind, inside a tent if possible. Apply mouth to mouth resuscitation with external cardiac massage, if necessary. Often spontaneous recovery will occur after the loss of body heat is stopped, and the person may be fed and reassured for at least the rest of the day.

Prevention

The group must be able to withstand some discomfort, navigate efficiently, and assess its capabilities. Carefully consider the risk of exposure before travelling in adverse conditions. Clothing must be adequate, especially wind and waterproof. You should eat, even if a stop will be a cold and gloomy one. When things get 'too rough', responsible people must consider the chances of continuing successfully, and if the party shows any signs of exposure, an immediate diversion of energies to camping is necessary.

the parka

Because a parka is possibly the most useful and often most used item of bicycle touring equipment it is important that it be durable as well as efficiently perform its water and wind repellant requirements.

Material

Most manufactured parkas and rain capes are made of natural and proofed fabric like cotton (japara) fabric (oilskins) or nylon fabric.

Both fabrics have their advantages and disadvantages. The most important thing is that your parka or cape keep you dry while standing or slowly cycling in the rain. It is also necessary for the fabric to 'breathe'. That is, allow moisture from your body to escape and not condense too much on the inside of the material. The big problem with nylon in this regard is that usually its waterproofness depends on a fine layer of plastic on the inside of the woven fabric which seals the porous woven fabric. The smooth nylon fibres will not hold proofing for very long and the layer of plastic breaks down with use. When the proofing wears off a japara oilskin

you apply some more compound.

Cotton japara is a natural fibre so it is susceptible to attack by fungal growth. This occurs as with tents if the item of equipment is stored wet and unventilated for a day or so — the mildew weakens the fabric (not often noticeable on such an oily object) and eventually tears occur at stress points.

Never store a wet parka and never consider it to be dry after being worn even in dry weather. Nylon will harbour mildew but to a much lesser extent. Because of the oil, proofed japara picks up dirt and eventually gets an earthy appearance. Nylon fabrics are generally brighter and for the cyclist this is necessary if safety is important. On dull days in low visibility, being seen by motorists is a major concern.

Specification

Manufacturers should respond to the needs of a growing bicycle touring population and consider the following list of needs for the bicycle touring parka. Parkas can easily be made on a home sewing machine if you want to do it yourself.

Hood large enough to cover forehead when hands are low on handle bars.

Bright overall colour or with bright panel on back and shoulder area.

Map pocket under cape flap. Velcro fasteners on flaps.

Sleeves should be long enough so as not to ride up arms when wet. If elastic is used in ends to prevent air being forced in then the elastic should work when wet. A simple tightening strap would be a better device.

Drawstring waistband with knobs on ends of tapes.

Simple overlap for pocket 'lids'.

Velcro fastening patches.

Flap covering full length zip. (The kind which opens top and bottom) with wind flap over.

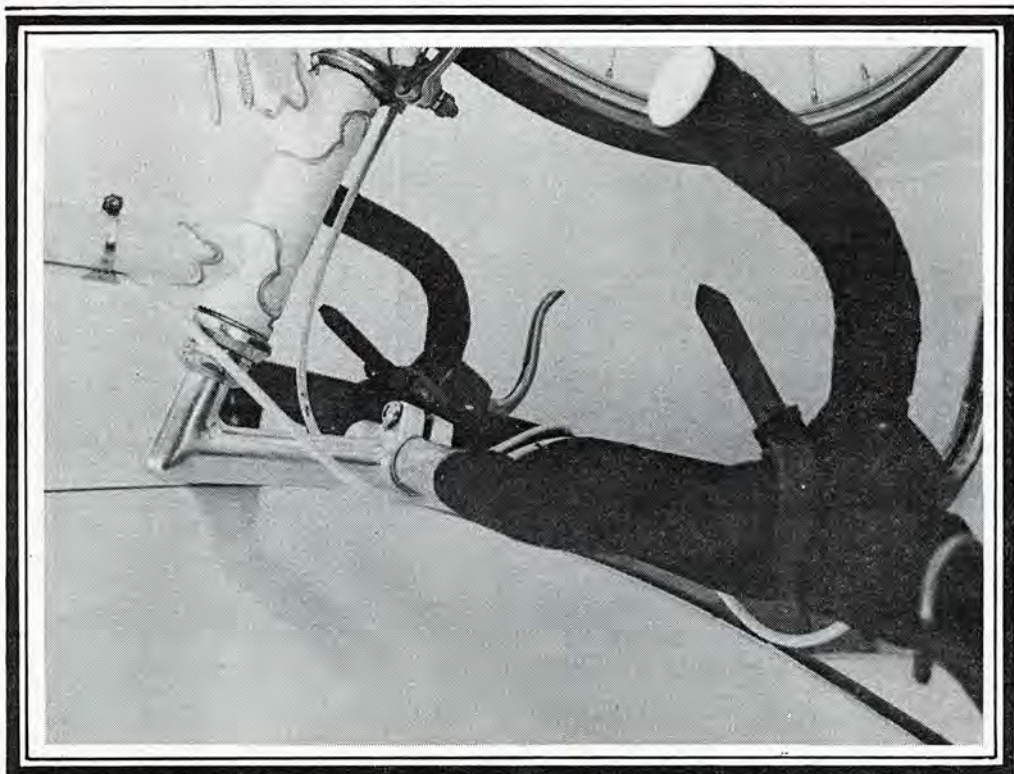
Ample length when wet and sitting down to keep bum dry.





How to make your car into a bicycle transporter

by Chas Coin



There will come a time when you will need to transport your bicycle by (sssh!) car. There are a number of ways this may be done — some more successful than others.

1 In the boot of the car or in the rear of the station wagon. Unless you own a car with a very large boot then this will necessitate taking the bike apart (ie wheels out, mudguards — if any — off). This can be a dirty and messy business especially when you are trying to impress a friend with your cycling 'savoir faire'. The space in which you are putting the bike then becomes useless for other things such as the second or third bike.

Cost: minimal.

2 On a tow-bar mounted rack. These units look really fine and will display your bicycle to full advantage. Unfortunately my experience with these gives me a rather jaundiced view.

- The bike gets very dirty from dust and exhaust gases. On one car I had the tail pipe was adjacent to the wheel and scorched the casing.

- The boot becomes very inaccessible.

- Cars tend to run into the bike. The number of times this has happened to friends of mine are legion.

- The wheels can get damaged as you reverse through the dips at the beginning of steep driveways (I used to do this regularly).

Cost: approximately \$40 (assuming a tow-bar is fitted).

3 On top of the road on a special bike rack. These racks involve taking out the front wheel and installing the front forks on a dummy axle which is welded to the rack. All those excess front wheels can become a nuisance. Also a number of these have had poor design and even worse welding allowing the bike to depart from the car in a manner to which it is not accustomed. The triangulation of support from the front fork to the rear wheel does not encourage rigidity. Another disadvantage shared in common with No 4 (below) is that the bike can be wiped off if going through low profile garages.

Cost: approximately \$45.

4 On a pair of surfboard racks. This method involves turning the bike upside down and strapping the handlebars and saddle to the front and rear bars respectively. The front bar will sit comfortably in the handbrake/handlebar junction. The bike is strapped down using three pedal straps. The disadvantage is the same as for No 3 — wiping the bike off under low profile garages.

Cost: \$15 for the bars, \$6 for the straps.

After using all the methods above, I now use the last mentioned — if you hadn't guessed already.

build your own 'kiddie-seat'

an excellent solution to a perplexing problem

by Chas Coin

Like me, you may be faced with the problem of having to take your young offspring along with you on bicycle trips. Many people of my own age can recall being taken on a bicycle by our mothers, whilst safely installed in a wicker seat on the rear.

After surveying the market for suitable seats, it came down to one of two alternatives:

- a a rather simple contraption of Japanese manufacture, made of steel frame with hard seat and back boards for around \$17, or
- b a 'Troxel' moulded plastic seat at \$49 and a load of design faults.

A third alternative was suggested by my wife's reaction to the cost of the Troxel seat. Children's car seats are only \$39 brand new. So why not use a conventional safety car seat? From the 'For Sale' columns of the paper I obtained a 'Safe-n-Sound' moulded plastic car seat — the type without the sub-structure and needs to be attached semi-permanently to the car.

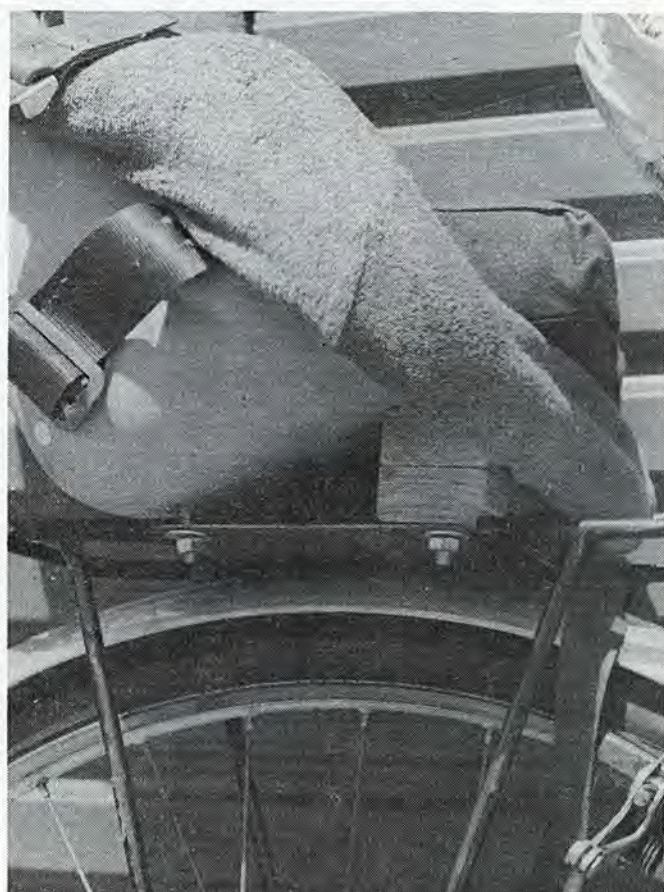
With a bit of ingenuity and a sturdy carrier (Karrimor) the seat in a matter of an hour or so became a kiddie-seat. A shaped piece of wood under the front lip of the seat gave the seat the right amount of tilt, and

four bolts attached the seat to a steel plate beneath the carrier. A form-fitting cushion was made out of high density foam.

The seat was put to the test the next day on a 40 km ride with the Newcastle Cycleways Movement. Our ten-month old took to it immediately, sitting and commanding a view like a rajah in a sedan chair. It was so successful that he fell asleep in it after lunch. The high enveloping sides enable his head to flop back without going over the sides. The 5-way seat belting made sure he stayed in place. The cushion protected him from the four bolts and acted as shock absorber. Unlike other seats this one can be mounted fairly close to the riders seat which keeps alteration of the bike handling characteristics to a minimum. This proximity also means that little feet are away from the brakes and spokes. The child is also close enough to touch the parent which can be very important for some children.

Discounting the cost of the carrier, the seat cost me \$15 for the seat proper, and about \$1 for the bolts. The wood and steel came from the rubbish bin at work.

We are extremely pleased with our innovation and so we offer you a solution to a perplexing problem.





The stills and music on these pages are from an eight minute colour 16 mm film called *Push On* by Pat Fiske and Lee Chittick. It is an exuberant attempt to promote the interests of cyclists by covering a bicycle rally over the Sydney Harbour Bridge on Public Transport Day, August 1 1975.

The lyrics were written by Colleen Burke, Seamus Gill, Denis Kevans and Declan Affley.

It is available for hire at the Sydney Filmmakers Cooperative, St Peter's Lane, Darlinghurst, 31 3237, for \$6, price negotiable for schools, environment and cycle groups.

PUSH ON

A Film by Pat Fiske & Lee Chittick

for verses 1, 4, 5, 8

1. Co - me all you who are o - ver-weight and rest - less tired and wea - ry oh just
The mot - or lob - by don't ap - prove and dai - ly tries to stop us all with

Throw your leg a - cross a bike and pe - dal on your way
bar - ri - cades and toll booth gates and cop - pers in a row.

for verses 2, 3, 6, 7, 9, 10

2. Push on Push on and pe - dal on your bi - cy - cle and

for verses 2, 10

lis - ten to the mus - ic that is hum - ming from your wheels

} alternative staves

for verses 3, 6, 7, 9

Push on Push on its fun and lib - er - a - ting and you

rea - ly ought to try it just to know how good it feels.

3. But we can weave and wander thru their battlements
and stop and start turn left or right at will
for we are free from motorised impediments
we're young and old and breathing and we're never know to kill.

4. The cars are eating London town, Los Angeles and Tokyo
and now they're eating Sydney as they've eaten all the rest
There's nothing on the northern side but highways and approaches — o
with trucks and cars and coaches, they are filling up the west.

5. On holidays the motor cars are bumper bar to bumper bar to bumper bar
the clouds of smoke are building up from Bondi out to Parkes
Your guts are getting tighter and the tension keeps you smoking — o
your lungs both need decoking and your eyes are seeing sparks.

6. But we can weave and wander thru their battlements
and stop and start turn left or right at will
for we are free from motorised impediments
we're young and old and breathing and we're never known to kill.

7. Push on Push on and peddle on to fitness
Push on Push on, It's easy if you try
Push on Push on and laugh at all those prisoners
who are tied up in the traffic jams as we go whistling by.

8. They're shutting up the bus stops and they're closing down the stations — o
we're paying more and getting less each morning we commute
If traffic jams and public trains have sorely tried your patience — o
then come and ride along with us it's really bloody beaut.

9. Have a look just have a bloody go at them
their nongs, their wrong, just look at what they are
I wish I had an empty can to throw at them
the bastards keep on passing me in my new motor car.

10. Push on Push on and peddle on your bicycle
and listen to the music that is humming from your wheels
Push on Push on it's fun and liberating and you really ought
to try it just to know how good it feels.

Look out! Here comes SPROCKET MAN



Sprocket Man is a safety comic published by the Bicycle Institute of Victoria to improve the standard of bicycle riding in that state as well as in Australia as a whole.

The American version of this comic was published in 1975 by the Urban Scientific and Educational Research Inc (USER) and it was designed for Stanford University cyclists.

250 000 have been distributed in the USA and USER now have a contract with the US 'Consumer Products Safety Commission' to revise *Sprocket Man* for nationwide distribution. The Australian version is nearly the same as the US version but the drawings have been reversed as Australians drive on the other side of the road and the road markings are different.

Sprocket Man will be evaluated

as a teaching aid by secondary school teachers, and be part of the experimental bicycle safety programs being tested for statewide application in Geelong. It is not suitable for primary school children because they cannot cope with 'motorist type' right hand turns shown on pages 5, 6 and 7 and they should be instructed to do box turns.

The use of comics for traffic safety education in schools has great potential, but there are legal hassles to be overcome. Road law relating to cyclists is badly in need of revision, and puts the BIV, teachers and police in the embarrassing position of telling children to do things that are technically illegal, but safe.

The printing of the Australian edition of *Sprocket Man* was

funded by the Victorian Department of Youth Sport and Recreation. Copies of the comic are available for 25c each to any distributor. This is a nominal charge to cover postage only. Multiple copies can be provided at a reduced rate as follows:

2 copies —	40c
5 copies —	60c
10 copies —	\$1.00
40 copies —	\$2.00
100 copies —	\$4.00

Send postage stamps to cover costs except for orders of 100 or more when a cheque made payable to the BIV should be sent.

Copies are obtainable from:
Bicycle Institute of Victoria

PO Box 1961 R
GPO Melbourne
VICTORIA 3001

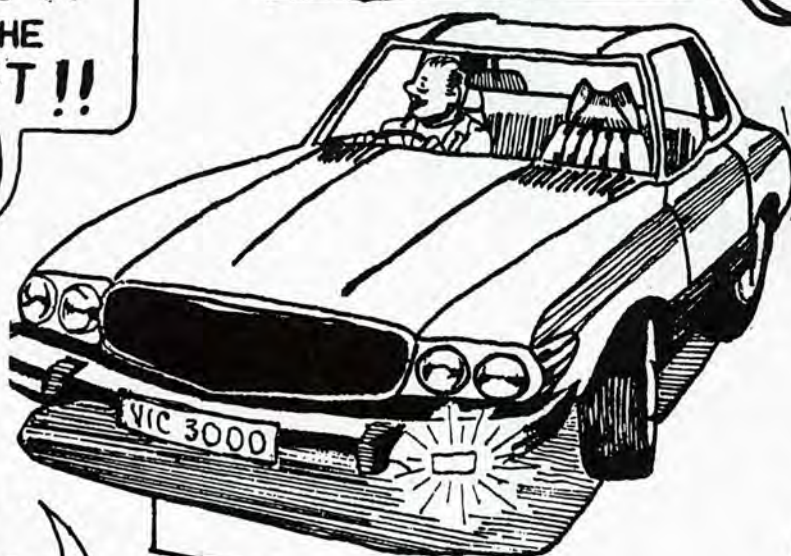


WAIT YOUR TURN
AT INTERSECTIONS!

Whether you are
going straight or
turning left....

DON'T PASS A
CAR ON THE
LEFT!!

I'll zip past him
before he can turn.
He's got the stop sign...
Besides, he'll see me on his rear view



Bicyclists

have finally convinced people that bikes are **NOT** toys but **VEHICLES**. As vehicles, though, bikes are **SUBJECT** to the state vehicle code. Under those laws, your status as bicyclist* is: "EVERY PERSON RIDING A BICYCLE UPON A ROADWAY HAS ALL THE RIGHTS AND DUTIES APPLICABLE TO THE DRIVER OF A VEHICLE."

So **STOP** at all stop signs and stop lights AND **OBEY THE RULES OF THE ROAD!!**

* VICTORIAN LAW. THE BICYCLE IS A VEHICLE.

BE SEEN AT NIGHT!

Wear **LIGHT CLOTHING**. Use **REFLECTIVE VESTS** and/or **REFLECTIVE TAPE** applied to clothing.

Attach these to bike:

- WHITE HEADLIGHT.
- RED REARLIGHT.
- REAR RED REFLECTOR.
- WHITE OR YELLOW REFLECTOR ON PEDALS.
- YELLOW (IN FRONT) AND RED (IN REAR) SIDE REFLECTORS.

boy'o boy! what a
dream of a car



Bike Beak



let's you take, em
with you..



- The bicycle carrier engineered by bike riders to transport up to three bicycles on any car tow bar.
- Simple to install — only one bolt to fix.
- Rubber lined tube holders to prevent damage.
- Lightweight alloy casting.
- Carries ladies' bikes up-side-down on the diagonal bar.
- Thousands of bike beaks have been tested on Australian roads.
- Provision for security locking.
- Unconditionally guaranteed for three years.



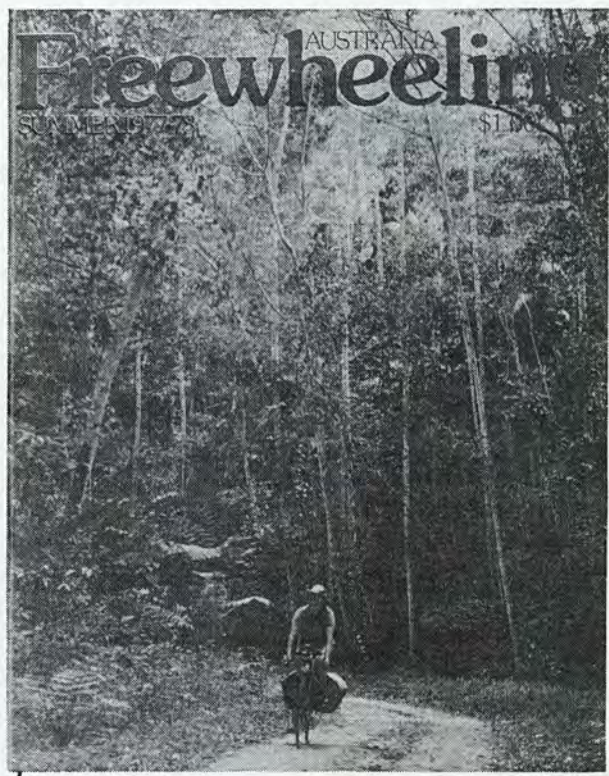
ASK FOR THE KANGAROO BIKE BEAK* AT ALL BICYCLE SHOPS
Mfg. & Distributed by Hanley Trading Pty. Ltd.,
27 Raymond Avenue, Matraville. 2036. Phone: 666 9675
*patented

Back Issues

Make sure you get all the valuable information and ideas offered by *Freewheeling* by ensuring you have a complete set. Copies of issue no 1 are still available at the recommended retail price of \$1.00 including postage. Fill out the order form provided in this issue and send with your cheque or money order to publishers. *Freewheeling* makes a great gift for cycling friends too.

Issue 1

Recreation and Cycling; Bicycle Safety; Bicycle History; Cycle Camping; Ather-ton Tablelands Touring; Bicycling in India; Tools; Tents; Traffic Jamming; You Too Can Dump Your Auto; Bicycle Politics; Books; NSW & ACT Bike Shops; Benefits of Bicycle Transport.



Freewheeling

Now Freewheeling gets to you wherever you live

No matter where you live in Australia you can receive *Freewheeling* magazine by post at the introductory price of \$3.60 for four issues including postage.

Freewheeling Australia is published four times a year and comes packed with ideas and information to help you get the most out of bicycling. Just fill out the subscription card enclosed in this issue

and post with your cheque or money order to **Freewheeling Australia Publications, PO Box 57, Broadway NSW 2007.**

Future issues will continue to provide information to keep you up on whats happening in this country as well as others as bicyclisation meets the energy crunch head on.

In each issue you will find well

illustrated trip reports, riding tips and advice, do it yourself articles, technical information and historical pieces, all well researched and presented.

Freewheeling Australia is distributed nationally through bike shops and selected bookshops and newsagents. New retail outlets are always welcomed. (Enquiries from Publisher.)



Notice to Contributors

Well researched articles (preferably accompanied by photos or graphics) are welcomed by the publishers. The text should be typed double spaced and photographs accompanied by suggested captions. Touring articles should be provided with a clear map of the route described. These will be returned to authors after publication.

Letters to the publishers for the letters section and questions for a forthcoming technical column are also welcomed.

Address all correspondence to the Publishers, *Freewheeling Australia Magazine*, PO Box 57, Broadway NSW 2007.

REPRODUCTION

Copyright of material appearing in this magazine lies with the individual authors. Permission must be sought from them before any material is reproduced. Unacknowledged articles originate from the Freewheeling editorial collective who only require that an acknowledgement of source — (Reprinted from *Freewheeling Australia Magazine*, Issue 1) — be given when reproducing.



CLARENCE STREET CYCLERY

**75 CLARENCE STREET
SYDNEY NSW**

(02) 291278 294608

- Speedwell, Raleigh, Peugeot, Oxford, Bennett, Viscount, Repco, Malvern Star, Gitane, Swift.
- Hand Made Cycles
- Large range of parts and accessories including racing and touring equipment.
- Extensive range of clothing including shirts (woolen), shorts, long pants and shoes.
- Expert repairs, servicing and frame building
- Repco ergometers and health equipment
- Layby, terms & bankcard accepted.
- Hours of Business:
Mon to Fri: 8.30— 5.30
Thurs Night Till: 8.30
Sat: 8.30—12.30

**Australia's
largest
bicycle
showroom**

